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Radio Aids to Marine Navigation 2018 (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific)

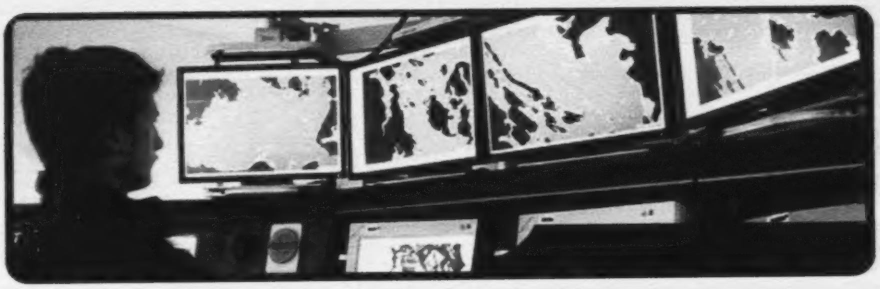

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Table of Contents

Part 1 Foreword 1

1.1 Advance Notices 1
  1.1.1 The Radio Aids to Marine Navigation Annual Publications 1
  1.1.2 Ship Radio Inspections 1
  1.1.3 The Canadian Forces Fleet MetOc Broadcast Service 1
  1.1.4 Avoid Collision with Right Whales – Atlantic Ocean 2
1.2 Canadian Maritime Mobile Safety and Public Correspondence Communication Frequencies 2
1.3 General Information on MCTS Listings 9
1.4 Telephone / Facsimile/ Telex Directory 10
1.5 Joint Rescue Coordination Centre (JRCC) / Maritime Rescue Sub-Centre (MRSC) 11
1.6 Icebreaking Services 12
1.7 Regional Office Addresses 12
1.8 Regional Notices to Shipping (NOTSHIP) Issuing Authorities 13

Part 2 Facilities Information 1

2.1 Marine Communications and Traffic Services Centres 1
  2.1.1 Halifax, Nova Scotia 1
  2.1.2 Iqaluit, Nunavut 7
  2.1.3 Labrador (Goose Bay), Newfoundland and Labrador 15
  2.1.4 Les Escoumins, Québec 19
  2.1.5 Placentia, Newfoundland and Labrador 25
  2.1.6 Port aux Basques, Newfoundland and Labrador 29
  2.1.7 Prescott, Ontario 33
  2.1.8 Prince Rupert, British Columbia 37
  2.1.9 Québec, Québec 44
  2.1.10 Sarnia, Ontario 47
  2.1.11 Sydney, Nova Scotia 51
  2.1.12 Victoria, British Columbia 55
2.2 Canal and Lock Operations 60
2.3 Canal, Port and Lock Operations 60
2.4 Bridge Operations 61
2.5 Radio Beacon Stations Continuously in Operations 70
2.6 Radar Beacon (Racons) 71
  2.6.1 Atlantic Coast, Gulf and St. Lawrence River to Montréal, Eastern Arctic 71
  2.6.2 Lake Winnipeg 76
  2.6.3 Great Lakes (includes St. Lawrence River to Montréal) 76
  2.6.4 Pacific Coast 78
  2.6.5 Western Arctic 80

Part 3 Vessel Traffic Services 1

3.1 Canadian Coast Guard Responsibilities 1
3.2 Traffic Clearance 1
3.3 Communications 2

3.3.1 Communication Difficulties 2
3.3.2 Ship Board Radio Communications Equipment Malfunction 2

3.4 Offshore Systems 3

3.4.1 Zone Description 3

3.5 Local Vessel Traffic Services (VTS) Zones 3

3.5.1 Local Vessel Traffic Services (VTS) Zone Reports 4
3.5.2 Information Required 4
3.5.3 Entering a Zone 4
3.5.4 Variations from Requirement 5
3.5.5 Change in Information 5
3.5.6 Non-Routine Reports 5

3.6 Additional Reporting Requirements 6

3.6.1 Co-Operative Vessel Traffic Services (CVTS) Agreement 6
3.6.2 Western Canada – Turn Point Special Operating Area 7
3.6.3 Western Arctic – Mackenzie River Marine Safety Advisory Procedures 8

3.7 Zone Application 10

3.7.1 Offshore Systems 10

3.8 Advance Reporting Requirements 11

3.8.1 VTS Offshore Zone Report 11
3.8.2 ECAREG Zone Report 12
3.8.3 NORDREG Zone Reports 14
3.8.4 Pre-Arrival Information Report (PAIR) 18
3.8.5 West Coast – USA Notice of Arrival 19

3.9 Vessel Traffic Services Zone Schedules 23

3.9.1 Bay of Fundy 23
3.9.2 Northumberland Strait 31
3.9.3 Placentia Bay 33
3.9.4 Port aux Basques 37
3.9.5 St. John's 40
3.9.6 St. Lawrence Waterway 42
3.9.7 Sarnia Zone and Areas 49
3.9.8 Strait of Belle Isle – Voluntary Zone 57
3.9.9 Strait of Canso and Eastern Approaches 60
3.9.10 Prince Rupert 63
3.9.11 Victoria 74

Part 4 General 1

4.1 Procedures 1

4.1.1 Radiotelephone Procedures 1
4.1.2 Distress Communications in Radiotelephony 5
4.1.3 Urgency Communications 9
4.1.4 Safety Communications 10
4.1.5 Aids to Navigation 11

4.2 Systems 13
4.2.1 Global Maritime Distress and Safety System in Canada (GMDSS) 13
4.2.2 Long-Range Identification and Tracking of Vessels Regulations (LRIT) 15
4.2.3 Emergency Position Indicating Radio Beacons (406 MHz) 19
4.2.4 Ship Station (Radio) Regulations, 1999 20
4.2.5 Guidance for Masters in Distress Situations and Alerting of SAR Authorities 24
4.2.6 Procedure for Responding to DSC Distress Alerts by Ships 31
4.2.7 AMVER - Automated Mutual-Assistance Vessel Rescue System 36
4.2.8 Differential Global Positioning System (DGPS) 44
4.2.9 Pre-Arrival Information Report (PAIR) 50

4.3 Services 53
4.3.1 Notices to Shipping 53
4.3.2 NAVTEX Services in Canada 54
4.3.3 World-Wide Navigational Warning Service (WWNWS) 63
4.3.4 Cellular Phone (*16) Service - Marine Emergencies 68
4.3.5 Direction Finding (VHF/DF) Service 68
4.3.6 Sail Plan Service 69
4.3.7 Search and Rescue in Canadian Areas of Responsibility 70
4.3.8 Marine Communications and Traffic Services Message Service 71
4.3.9 Icebreaking and Ice Routing Services 74
4.3.10 Canadian Hydrographic Service 75
4.3.11 Inspection of Radio Apparatus 76
4.3.12 Radio Station Licensing and MMSI Numbers 80
4.3.13 Marine Telephone Service 81

Part 5 Environment and Climate Change Canada's Marine and Ice Warning and Forecast Programs 1

5.1 Background 1
5.2 Marine Weather Alerting Program 1
5.3 Marine and Ice Forecast Program 2
5.3.1 Monitoring the Forecast 3
5.3.2 Marine and Ice Forecast Areas 3
5.3.3 Current Conditions 3
5.3.4 Emergency Response 4
5.3.5 Delivery of Marine Warning and Forecast Services 4

5.4 Voluntary Observing Ship (VOS) Program 4
5.5 Buoys Program 5
5.6 Port Meteorological Officers (PMOs) 5
5.6.1 Port Meteorological Officers (PMOs) 5

5.7 NAVTEX 7
5.7.1 Abbreviations Used by MSC within NAVTEX and METAREAs Bulletins 10
5.7.2 Ice Elements 12

5.8 Mafor Decode Table 14
5.9 Northern Canada 16
5.9.1 Marine Weather Forecast Program 16

5.9.2 Weather and Ice Messages 17
5.9.3 Weatheradio Canada 18
5.9.4 Marine Forecast Areas 21
5.9.5 Marine Forecast Service to METAREAs XVII, XVIII and Northwestern Sections of METAREA IV (Hudson Bay and Approaches) 24
5.9.6 Serviced Forecast Zones 26
5.9.7 METAREAs Forecast Transmission 28

5.10 Newfoundland and Labrador 31

5.10.1 Marine Weather Forecast Program 31
5.10.2 The Regular Program 31
5.10.3 Marine Weather Observations and Forecast Bulletins 32
5.10.4 Weatheradio Canada 32
5.10.5 Marine Forecast Areas 34

5.11 Maritimes Region 35

5.11.1 Marine Weather Forecast Program 35
5.11.2 The Regular Program 35
5.11.3 The Recreational Program 35
5.11.4 Marine Weather Observations and Forecast Bulletins 36
5.11.5 Canadian Hurricane Centre 36
5.11.6 Weatheradio Canada 37
5.11.7 Marine Forecast Areas 41

5.12 Québec Region 42

5.12.1 Marine Weather Forecast Program 42
5.12.2 The Regular Program 42
5.12.3 The Recreational Program 42
5.12.4 Marine Weather Observations and Forecast Bulletins 43
5.12.5 Buoy Position St. Lawrence River 43
5.12.6 Weatheradio Canada 43
5.12.7 Marine Forecast Areas 44

5.13 Great Lakes Including St. Lawrence River to Cornwall 46

5.13.1 Marine Weather Forecast Program 46
5.13.2 The Regular Program 46
5.13.3 The Recreational Program 46
5.13.4 Buoys 47
5.13.5 Weatheradio Canada 48
5.13.6 Marine Forecast Areas 49

5.14 Pacific Coast 50

5.14.1 Marine Weather Forecast Program 50
5.14.2 Marine Weather Observations and Forecast Bulletins 50
5.14.3 Weatheradio Canada 51
5.14.4 Marine Forecast Areas 54
5.14.5 Marine Weather Observations 54

5.15 Canadian Ice Service (CIS) 56

5.15.1 Ice Forecasts 56

5.15.2 Ice Program....57
5.15.3 Ice Reports or Observations....57
5.15.4 Ice Charts....57
5.15.5 Weatheradio Canada....57
5.15.6 CIS Service to Marine Forecast Areas....57
5.15.7 Daily Ice ChartsBroadcast....58
5.15.8 Facsimile Broadcast....59

List of Tables

Table 1-1 - Maritime Mobile Safety and Communication Frequencies MF/HF 2
Table 1-2 - Maritime Mobile Safety and Communication Frequencies VHF 6
Table 1-3 - Legend for MCTS Centre Listings 9
Table 1-4 - Telephone / Facsimile / Telex Directory 10
Table 2-1 - Halifax MCTS/VCS - Ship/Shore Communications 2
Table 2-2 - Halifax MCTS/VCS - Broadcasts 3
Table 2-3 - Iqaluit MCTS/VFF - Ship/Shore Communications 7
Table 2-4 - Iqaluit MCTS/VFF - Broadcasts 9
Table 2-5 - Labrador MCTS/VOK - Ship/Shore Communications 15
Table 2-6 - Labrador MCTS/VOK - Broadcasts 16
Table 2-7 - Les Escoumins MCTS/VCF - Ship/Shore Communications 19
Table 2-8 - Les Escoumins MCTS/VCF - Broadcasts 21
Table 2-9 - Placentia MCTS/VCP - Ship/Shore Communications 25
Table 2-10 - Placentia MCTS/VCP - Broadcasts 26
Table 2-11 - Port aux Basques MCTS/VOJ - Ship/Shore Communications 29
Table 2-12 - Port aux Basques MCTS/VOJ - Broadcasts 30
Table 2-13 - Prescott MCTS/VBR - Ship/Shore Communications 33
Table 2-14 - Prescott MCTS/VBR - Ship/Shore Communications Serving Lake Winnipeg 34
Table 2-15 - Prescott MCTS/VBR - Broadcasts 34
Table 2-16 - Prescott MCTS/VBR - Lake Winnipeg Broadcasts 36
Table 2-17 - Prince Rupert MCTS/VAJ - Ship/Shore Communications 37
Table 2-18 - Prince Rupert MCTS/VAJ - Broadcasts 40
Table 2-19 - Québec MCTS/VCC - Ship/Shore Communications 44
Table 2-20 - Québec MCTS/VCC - Broadcasts 45
Table 2-21 - Sarnia MCTS/VBE - Ship/Shore Communications 47
Table 2-22 - Sarnia MCTS/VBE - Broadcasts 49
Table 2-23 - Sydney MCTS/VCO - Ship/Shore Communications 51
Table 2-24 - Sydney MCTS/VCO - Broadcasts 53
Table 2-25 - Victoria MCTS/VAK - Ship/Shore Communications 56
Table 2-26 - Victoria MCTS/VAK - Broadcasts 57
Table 2-27 - Atlantic Coast, Gulf and St. Lawrence River to Montréal, Eastern Arctic 60
Table 2-28 - Great Lakes (includes St. Lawrence River to Montréal) 60
Table 2-29 - Pacific Coast 61
Table 2-30 - Atlantic Coast, Gulf and St. Lawrence River to Montréal, Eastern Arctic 70
Table 2-31 - Pacific Coast (Radio Beacons located in British Columbia) 70
Table 2-32 - Radar Beacons located in Newfoundland 71
Table 2-33 - Radar Beacons located in Nova Scotia 71
Table 2-34 - Radar Beacons located in New Brunswick 72
Table 2-35 - Radar Beacons located in Prince Edward Island 73
Table 2-36 - Radar Beacons located in Québec 73
Table 2-37 - Radar Beacons located in Manitoba 75
Table 2-38 - Radar Beacons located in Nunavut and Nunavik 75
Table 2-39 - Radar Beacons located in Nunavut 76
Table 2-40 - Radar Beacons located in the United States 76
Table 2-41 - Radar Beacons located in Lake Winnipeg 76
Table 2-42 - Radar Beacons located in Ontario unless noted 76
Table 2-43 - Radar Beacons Located in British Columbia 78

Table 2-44 - Radio Beacons Located in Northwest Territories and Nunavut 80
Table 3-1 - NORDREG Zone Report: Designators and Information Required 16
Table 3-2 - Sectors and Boundaries for the Bay of Fundy 23
Table 3-3 - Identification and Frequencies for the Bay of Fundy 23
Table 3-4 - Calling-In-Points for the Bay of Fundy 23
Table 3-5 - Sectors and Boundaries for Halifax Harbour and Approaches 28
Table 3-6 - Identification and Frequencies for Halifax Harbour and Approaches 28
Table 3-7 - Calling-In-Points for Halifax Harbour and Approaches 28
Table 3-8 - Sector and Boundaries for Northumberland Strait 31
Table 3-9 - Identification and Frequencies for Northumberland Strait 31
Table 3-10 - Calling-In-Points for Northumberland Strait 31
Table 3-11 - Sectors and Boundaries for Placentia Bay 33
Table 3-12 - Identification and Frequencies for Placentia Bay 33
Table 3-13 - Calling-In-Points for Placentia Bay 33
Table 3-14 - Sectors and Boundaries for Port aux Basques 37
Table 3-15 - Identification and Frequencies for Port aux Basques 37
Table 3-16 - Calling-In-Points for Port aux Basques 37
Table 3-17 - Sector and Boundaries for St. John's 40
Table 3-18 - Identification and Frequencies for St. John's 40
Table 3-19 - Calling-In-Points for St. John's 40
Table 3-20 - Sectors and Boundaries for St. Lawrence Waterway 42
Table 3-21 - Identification and Frequencies for St. Lawrence Waterway 42
Table 3-22 - Calling-In-Points for St. Lawrence Waterway 42
Table 3-23 - Sectors and Boundaries for Sarnia Zone and Areas 49
Table 3-24 - Identification and Frequencies for Sarnia Zone and Areas 49
Table 3-25 - Calling-In-Points for Sarnia Zone and Areas 50
Table 3-26 - VHF Listening Watch Requirements 53
Table 3-27 - Sector and Boundaries for Strait of Belle Isle 57
Table 3-28 - Identification and Frequencies for Strait of Belle Isle 57
Table 3-29 - Calling-In-Points for Strait of Belle Isle 57
Table 3-30 - Sector and Boundaries for Strait of Canso and Eastern Approaches 60
Table 3-31 - Identification and Frequencies for Strait of Canso and Eastern Approaches 60
Table 3-32 - Calling-In-Points for Strait of Canso and Eastern Approaches 60
Table 3-33 - Sectors and Boundaries of Prince Rupert - North 63
Table 3-34 - Identification and Frequencies of Prince Rupert 63
Table 3-35 - Calling-In-Points of Prince Rupert - North 64
Table 3-36 - Sectors and Boundaries for Prince Rupert - South 71
Table 3-37 - Identification and Frequencies for Prince Rupert 71
Table 3-38 - Calling-In-Points for Prince Rupert - South 71
Table 3-39 - Sectors and Boundaries for Victoria 74
Table 3-40 - Identification and Frequencies for Victoria 74
Table 3-41 - Calling-In-Points for Victoria 75
Table 4-1 - Initial Call When a Vessel is Attempting to Establish Communication on a Working Frequency with a Specific Station 1
Table 4-2 - Initial Call When a Vessel Wishes to Establish Communications with any Station within Range (or within a certain area) 2
Table 4-3 - Example of a Ship to Shore Radio Message 2
Table 4-4 - Practical Terms 3
Table 4-5 - Time Zone Comparison 4
Table 4-6 - Example of a distress call/message 9

Table 4-7 - Four "Sea Areas" defined in the GMDSS 14
Table 4-8 - Sea Area A1 or VHF 20
Table 4-9 - Sea Area A3 21
Table 4-10 - Sea Area A4 22
Table 4-11 - Sail Plan and Departure Report Example 40
Table 4-12 - Final Arrival Report Example 41
Table 4-13 - Position Report Example 41
Table 4-14 - Deviation Report Used to Report Sail Plan and Other Changes Example 42
Table 4-15 - St. Lawrence River, Atlantic Coast, Great Lakes and Pacific Coast 44
Table 4-16 - Distribution of Written Notices to Shipping 53
Table 4-17 - Transmitting sites where NAVTEX Service is available 54
Table 4-18 - Broadcast Schedule 64
Table 5-1 - Synoptic Warnings 1
Table 5-2 - Localized Warnings / Watches and Marine Weather Advisory 2
Table 5-3 - Marine Forecast Program 2
Table 5-4 - Date/Time Standards 10
Table 5-5 - Marine Forecast Area Dividing Standards 10
Table 5-6 - Forecast Parameters 10
Table 5-7 - Wind Elements 10
Table 5-8 - Freezing Spray Qualifier 10
Table 5-9 - Wave Elements 10
Table 5-10 - Weather Elements 11
Table 5-11 - Weather/Visibility Elements (qualifier) 11
Table 5-12 - Trend Descriptors (synopsis) 11
Table 5-13 - Systems Descriptors (synopsis) 11
Table 5-14 - Position Descriptors (synopsis) 11
Table 5-15 - Cardinal Point Descriptors (synopsis) 12
Table 5-16 - Territorial References (synopsis) 12
Table 5-17 - Ice Concentration 12
Table 5-18 - Ice Type 12
Table 5-19 - Ice Qualifier 12
Table 5-20 - Ice General 13
Table 5-21 - Ice Direction 13
Table 5-22 - Visibility Category and Range 13
Table 5-23 - Production Schedule - Text Format 16
Table 5-24 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule) 17
Table 5-25 - Buoys Deployed During the Open Water Season 18
Table 5-26 - Eastern and Western Arctic Waters, and Hudson Bay 21
Table 5-27 - Inland Waters 22
Table 5-28 - Danish Marine Forecasts for Baffin Bay Waters Available via *Danish Meteorological Institute*, Copenhagen Telephone: (45) 39 15 7500 23
Table 5-29 - Marine Weather Observations – Manned Station Reports 23
Table 5-30 - Marine Weather Observations – Automatic Reports 23
Table 5-31 - Marine Weather Observations – Buoy Reports for 24
Table 5-32 - FQCN01 CWAO - Marine Forecasts and FICN01 CWIS - Ice Bulletin for METAREA XVII North of 75°N 26
Table 5-33 - FQCN02 CWAO - Marine Forecasts and FICN02 CWIS - Ice Bulletin for METAREA XVII South of 75°N 26

Table 5-34 - FQCN03 CWAO - Marine Forecasts and FICN03 CWIS - Ice Bulletin for METAREA XVIII North of 75°N 26
Table 5-35 - FQCN04 CWAO - Marine Forecasts and FICN04 CWIS - Ice Bulletin for METAREA XVIII South of 75°N 27
Table 5-36 - FQCN05 CWAO - Marine Forecasts and FICN05 CWIS - Ice Bulletin for Northwestern Sections of METAREA IV including Hudson Bay and Approaches 28
Table 5-37 - Production Schedule - Text Format 31
Table 5-38 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule) 31
Table 5-39 - Newfoundland and Labrador Waters 34
Table 5-40 - Marine Weather Observations 34
Table 5-41 - Production Schedule - Text Format 35
Table 5-42 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule) 35
Table 5-43 - Moored Buoys - Positions Northwest Atlantic Ocean 36
Table 5-44 - Maritime Waters 41
Table 5-45 - Marine Weather Observations 41
Table 5-46 - Production Schedule - Text Format 42
Table 5-47 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule) 42
Table 5-48 - Québec Waters 44
Table 5-49 - Marine Weather Observations - St. Lawrence and Saguenay Rivers 45
Table 5-50 - Production Schedule - Text Format 46
Table 5-51 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule) 47
Table 5-52 - Canadian Buoys 47
Table 5-53 – United States Buoys 48
Table 5-54 - Ontario Waters 49
Table 5-55 - Marine Weather Observations (1) - St. Lawrence River and Great Lakes 49
Table 5-56 - Production Schedule – Text Format 50
Table 5-57 - Production Schedule - NAVTEX format (refer to Part 2 for the MCTS broadcast schedule) 50
Table 5-58 - Buoy Positions – Northeast Pacific 51
Table 5-59 - Pacific Waters 54
Table 5-60 - Lighthouse Reports, (Type L), Automatic Reporting Stations (Type A), Ocean Buoys reports (Type B) 54
Table 5-61 - Production Schedule - Ice Bulletins Text Format 56
Table 5-62 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule) 56
Table 5-63 - Ice Warning Criteria 56
Table 5-64 - Ice Charts Listing 58
Table 5-65 - Canadian Coast Guard and Canadian Forces Fleet MetOc Radio Facsimile Stations 59

List of Figures

Figure 2-1 - VHF Coverage - Great Lakes 63
Figure 2-2 - VHF Coverage - Lake Winnipeg 64
Figure 2-3 - MCTS Network - Atlantic Region – Newfoundland and Labrador 65
Figure 2-4 - MCTS Network - Atlantic Region - Maritimes 66
Figure 2-5 - MCTS Network - Gulf and St. Lawrence River 67

Figure 2-6 - MCTS Network - Arctic 68
Figure 2-7 - MCTS: Pacific Region 69
Figure 3-1 - Vessel Traffic Services - Atlantic Coast 20
Figure 3-2 - Vessel Traffic Services - Northern Canada (NORDREG) Zone 21
Figure 3-3 - Canada/United States Co-operative Vessel Traffic Management System 22
Figure 3-4 - Vessel Traffic Services - Bay of Fundy 27
Figure 3-5 - Vessel Traffic Services - Halifax 30
Figure 3-6 - Vessel Traffic Services - Northumberland Strait 32
Figure 3-7 - Vessel Traffic Services - Placentia Bay 35
Figure 3-8 - Vessel Traffic Services - Port aux Basques 39
Figure 3-9 - Vessel Traffic Services - St. John's 41
Figure 3-10 - Vessel Traffic Services - St. Lawrence River 45
Figure 3-11 - Vessel Traffic Services - Sarnia VTS Zone and Areas 52
Figure 3-12 - Frequency Guard - Great Lakes Basin 55
Figure 3-13 - Vessel Traffic Services - Strait of Belle Isle 59
Figure 3-14 - Vessel Traffic Services - Strait of Canso 62
Figure 3-15 - Vessel Traffic Services - Prince Rupert - North - Sector 1 69
Figure 3-16 - Vessel Traffic Services - Prince Rupert - North - Sector 2 70
Figure 3-17 - Vessel Traffic Services - Prince Rupert - South - Sector 1 73
Figure 3-18 - Vessel Traffic Services - Vancouver - Sector 1 80
Figure 3-19 - Vessel Traffic Services - Vancouver - Sector 2 and 3 81
Figure 3-20 - Vessel Traffic Services - Vancouver - Sector 4 82
Figure 4-1 - GMDSS Operating Guidance for Masters of Ships in Distress Situations 24
Figure 4-2 - Operating Guidance for Masters of Ships in Distress or Urgency Situations 26
Figure 4-3 - Operation Guidance for Masters of Ships Observing Another Vessel Apparently in Danger 27
Figure 4-4 - Flow Diagram 1 (COMSAR/Cir.25) 33
Figure 4-5 - Flow Diagram 2 (COMSAR/Cir.25) 34
Figure 4-6 - Distress and Safety Radiotelephone Procedures 35
Figure 4-7 - DGPS Coverage - East Coast 46
Figure 4-8 - DGPS Coverage - St. Lawrence Seaway 47
Figure 4-9 - DGPS Coverage - Central Region 48
Figure 4-10 - DGPS Coverage - Pacific Region 49
Figure 4-11 - NAVTEX Coverage - 300 NM - Atlantic and Central and Arctic 56
Figure 4-12 - NAVTEX Coverage Western Region 57
Figure 4-13 - Canadian A3/A4 GMDSS Sea Areas Theoretical Coverage 58
Figure 4-14 - Radio Coverage Prediction – Atlantic Ocean 59
Figure 4-15 - Radio Coverage Prediction - Great Lakes 61
Figure 4-16 - VHF DSC System Radio Coverage Prediction - Pacific Ocean 62
Figure 4-17 - Canadian Navarea Zones and Broadcast Areas 64
Figure 4-18 - World-Wide Navigational Warning Service - NAVAREAs 67
Figure 5-1 - Marine Forecast Areas: Northern Canada 20
Figure 5-2 - Marine Forecast Areas: METAREAs XVII and XVIII 25
Figure 5-3 - Marine Forecast Areas: Northwestern METAREA IV 25
Figure 5-4 - Marine Forecast Areas: Newfoundland and Labrador 33
Figure 5-5 - Marine Forecast Areas: Maritimes 39
Figure 5-6 - Marine Forecast Areas: St. Lawrence and Saguenay Rivers 44
Figure 5-7 - Marine Forecast Areas: Great Lakes and St. Lawrence River 48
Figure 5-8 - Marine Forecast Areas: Pacific Waters 53

PART 1 FOREWORD

1.1 ADVANCE NOTICES

In order for mariners to have advance knowledge of proposed changes to existing facilities, all additions, deletions and changes to such facilities under the jurisdiction of the Canadian Coast Guard are listed below. Effective dates of changes and dates for the commissioning of new facilities are extremely hard to forecast due to difficulties in obtaining materials and are subject to the provision of necessary funds. Every effort will be made to amend dates as far in advance as possible. A Notice to Mariners will be issued for all changes to facilities and the commissioning of new facilities.

1.1.1 *The Radio Aids to Marine Navigation Annual Publications*

Effective April 1, 2013, the CCG has ceased the printing of its "Radio Aids to Marine Navigation" annual publications. The publications will continue to be available online, free of charge, at: http://www.ccg-gcc.gc.ca/eng/CCG/Information_for_Mariners.

The "Radio Aids to Marine Navigation" annual publications are updated each April. Amendments will continue to be advertised by radio broadcast (Notices to Shipping) and/or issued on a monthly basis, when required, in "Notices to Mariners", Section 3. The "Notices to Mariners" publication is available online, free of charge, at: http://www.notmar.gc.ca.

Every ship station fitted on a Canadian ship or on a non-Canadian ship engaged in the coasting trade of Canada, pursuant to the *Ship Station (Radio) Regulations 1999*, and all ships in waters under Canadian jurisdiction, pursuant to the *Charts and Nautical Publications Regulations, 1995*, are required to carry the most recent applicable edition of "Radio Aids to Marine Navigation".

1.1.2 *Ship Radio Inspections*

Owners and masters of Canadian vessels are advised that Transport Canada has delegated the authority to issue radio inspection certificates to Recognized Organizations under the Delegation Statutory Inspection Program. Vessels enrolled in the Delegation Statutory Inspection Program, as well as classed ships, are encouraged to contact a Recognized Organization for their radio inspection required by regulations under the *Canada Shipping Act, 2001*. Currently, the Recognized Organizations are: the American Bureau of Shipping; Bureau Veritas; Det Norske Veritas; Germanischer Lloyd; and, Lloyd's Register. This is in addition to the CCG, who continues to also have delegated authority for this function.

1.1.3 *The Canadian Forces Fleet MetOc Broadcast Service*

The Canadian Forces Fleet MetOc Broadcast service (radioteletype and radiofacsimile) was placed in abeyance effective September 2, 2010. The Canadian Forces Fleet MetOc Broadcast may be reinstated and ceased without warning as necessitated by military operational requirements. When notified, Marine Communications and Traffic Services (MCTS) will issue a Notice to Shipping concerning reinstatement or cessation of this service.

1.1.4 *Avoid Collision with Right Whales – Atlantic Ocean*

North Atlantic Right Whales are the most endangered large whale in the world; about 350 remain. They are slow swimmers, seldom moving faster than 3-5 knots. They may stay submerged for 10 to 20 minutes and are seen alone or in small groups. If you spot one Right Whale, there may be more in the area.

Please report all sightings of Right Whales in Canada to the CCG via VHF Ch 16 and in the Bay of Fundy contact Fundy Traffic VHF Ch 14. They are difficult to see and might be oblivious to vessels – please avoid approaching them closely.

For more details, visit: http://sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=780.

Note: Roseway Basin Seasonal Area is to be avoided. In order to significantly reduce the risk of ship strikes of the highly endangered North Atlantic Right Whale, it is recommended that ships of 300 tons gross tonnage and upwards in transit during the period of June 1st through December 31st should avoid this area.

1.2 CANADIAN MARITIME MOBILE SAFETY AND PUBLIC CORRESPONDENCE COMMUNICATION FREQUENCIES

The frequencies listed on the following pages are those in general use by ships in Canadian waters for inter-ship communications and for ship/shore communications with MCTS operated by the CCG.

Part 2 of this publication contains individual listings for MCTS Centres operated by the CCG, giving details of the communication and special services provided to ships.

On the following pages are frequency lists, including the geographical areas of use:

a) Newfoundland and Labrador;
b) Atlantic Coast, Gulf and St. Lawrence River up to and including Montréal;
c) Great Lakes (including St. Lawrence above Montréal);
d) Arctic;
e) Athabasca and Mackenzie Inland Waterways, and
f) Pacific Coast

Table 1-1 - Maritime Mobile Safety and Communication Frequencies MF/HF

Carrier Frequency (kHz)		Channel	Class of Emission	CCG Area(s) in Use	Remarks
Ship	Coast				
4146	4146		J3E		Ship/Shore and Intership Communication.
4147	4147		J3E		Ship/Shore and Intership Communication.
4177.5	4177.5		F1B	d,e	International Distress/Safety (NBDP).
4207.5	4207.5		F1B	d, e	International Distress/Safety (DSC).
	4292		J3C	d, e	Radiofacsimile
	4363		J3E	d, e	CCG MSI
	4416		J3C	b	Radiofacsimile
4417			J3E		Call/Reply

Carrier Frequency (kHz)		Channel	Class of Emission	CCG Area(s) in Use	Remarks
Ship	**Coast**				
5680	5680		J3E	a, b, c, d, e, f	International SAR Communications Coordination.
5803	5803		J3E	e	Distress/Safety Calling/Reply. CCG MSI.
6200	6501	601	J3E	d, e	Public Correspondence.
6206	6507	603	J3E	a, b, d	Public Correspondence. CCG MSI.
6212	6513	605	J3E	a, b, d	Public Correspondence.
6215	6215	606	J3E	a, b, c, d, e, f	International Distress/Safety. Call/Reply.
	6218.6		J3E	e	CCG MSI.
6224	6224		J3E		Ship/Shore and Intership Communication.
6227	6227		J3E		Ship/Shore and Intership Communication.
6230	6230		J3E		Ship/Shore and Intership Communication.
6268	6268		F1B	d, e	International Distress/Safety (NBDP).
6312	6312		F1B	d, e	International Distress/Safety (DSC).
6516			J3E		Call/Reply (daytime use only).
	6915.1		J3C	b	Radiofacsimile
	7710		J3C	d	Radiofacsimile
8228	8752	812	J3E	d, e	Public Correspondence.
8255	8255		J3E		International Distress/Safety. Call/Reply.
8261	8785	823	J3E		Public Correspondence.
8267	8791	825	J3E		Public Correspondence.
8270	8794	826	J3E		Public Correspondence.
8291	8291		J3E	d	International Distress/Safety (RT).
8294	8284		J3E		Ship/Shore and Intership Communication.
8297	8297		J3E		Ship/Shore and Intership Communication.
8376.5	8376.5		F1B	d, e	International Distress/Safety (NBDP).
8414.5	8414.5		F1B	d, e	International Distress/Safety (DSC).
	8416.5		F1B	d, e	International MSI Broadcast (NBDP).
	8456		J3C	d, e	Radiofacsimile
	490		F1B	a, b, c, d	National NAVTEX Service (French).
	518		F1B	a, b, c, d. f	International NAVTEX Service (English).
2003			J3E	b	Intership
2040			J3E	f	Intership – pleasure craft.
	2054		J3E	f	CCG MSI.
2065	2065		J3E	a, b, c, f	Private Ship/Shore.
2079	2079		J3E	a, b, c, f	Private Ship/Shore.

Carrier Frequency (kHz)		Channel	Class of Emission	CCG Area(s) in Use	Remarks
Ship	Coast				
2082.5			J3E	a, b, c, d, e, f	Intership
2093	2093		J3E	a, b, c. f	Private Ship/Shore.
2100			J3E		Government use only.
2103.5			J3E		Government use only.
2118	2514		J3E	a, b, d, e	Public Correspondence.
2142	2558		J3E	a, d, e	Public Correspondence.
2173.5			F1B		International Distress/Safety (NBDP).
2182	2182		J3E	a, b, d, f	International Distress/Safety (RT). Call/Reply.
2187.5	2187.5		G2B		International Distress/Safety (DSC).
2237			J3E	a, b	Intership – Commercial, other than fishing vessels.
2313			J3E	f	Intership – Fishing vessels.
	2598		J3E	a, b	CCG MSI.
2340	2458		J3E		Public Correspondence.
2366			J3E	d, e, f	Intership – other than fishing vessels.
	2514		J3E	a, b, d, e	CCG MSI.
	2582		J3E	a, b, d	CCG MSI.
2638			J3E	a, b, d	Intership
2738			J3E	a, b, d	Intership
2815	2530		J3E	b	Public Correspondence.
	2749		J3E	b	CCG MSI.
	3253		J3C	d	Radiofacsimile
3023	3023		J3E	a, b, c, d, e, f	International SAR Communication and Coordination.
4071	4363	403	J3E	d, e	Public Correspondence.
4083	4375	407	J3E	a, b, d	Public Correspondence.
4086	4378	408	J3E	a, b	Public Correspondence.
4101	4393	413	J3E	a, b	Public Correspondence.
4116	4408	418	J3E	a, b	Public Correspondence.
4125	4125	421	J3E	a, b, c, d, e, f	International Distress/Safety (Radiotelephony). Call/Reply.
12230	13077	1201	J3E	d, e	Public Correspondence.
12290	12290	1221	J3E	d	International Distress/Safety. Call/Reply.
12353	12353		J3E		Ship/Shore and Intership Communication.
12356	12356		J3E		Ship/Shore and Intership Communication.
12359	12359		J3E		Ship/Shore and Intership Communication.

Carrier Frequency (kHz)		Channel	Class of Emission	CCG Area(s) in Use	Remarks
Ship	Coast				
12362	12362		J3E		Ship/Shore and Intership Communication.
12365	12365		J3E		Ship/Shore and Intership Communication.
12520	12520		F1B	d, e	International Distress/Safety (NBDP).
12577	12577		F1B	d, e	International Distress/Safety (DSC).
16369	17251	1604	J3E	a, b	Public Correspondence.
16420	16420	1621	J3E	d	International Distress/Safety. Call/Reply.
16528	16528		J3E		Ship/Shore and Intership Communication.
16531	16531		J3E		Ship/Shore and Intership Communication.
16534	16534		J3E		Ship/Shore and Intership Communication.
16537	16537		J3E		Ship/Shore and Intership Communication.
16540	16540		J3E		Ship/Shore and Intership Communication.
16543	16543		J3E		Ship/Shore and Intership Communication.
16546	16546		J3E		Ship/Shore and Intership Communication.
16459	17341	1634	J3E		Public Correspondence.
16695	16695		F1B	d, e	International Distress/Safety (NBDP).
16804.5	16804.5		F1B	d, e	International Distress/Safety (DSC).
18795	18795	1806			International Distress/Safety. Call/Reply.
18825	18825		J3E		Ship/Shore and Intership Communication.
18828	18828		J3E		Ship/Shore and Intership Communication.
18831	18831		J3E		Ship/Shore and Intership Communication.
18834	18834		J3E		Ship/Shore and Intership Communication.
18837	18837		J3E		Ship/Shore and Intership Communication.
18840	18840		J3E		Ship/Shore and Intership Communication.
18843	18843		J3E		Ship/Shore and Intership Communication.
22060	22060	2221	J3E		Ship/Shore and Intership Communication.
22159	22159		J3E		Ship/Shore and Intership Communication.
22162	22162		J3E		Ship/Shore and Intership Communication.
22165	22165		J3E		Ship/Shore and Intership Communication.
22168	22168		J3E		Ship/Shore and Intership Communication.
22171	22171		J3E		Ship/Shore and Intership Communication.
22174	22174		J3E		Ship/Shore and Intership Communication.
22177	22177		J3E		Ship/Shore and Intership Communication.
22036	22732	2213	J3E		Public Correspondence.
25097	25097	2510	J3E		Distress/Safety Communications. Call/Reply.
25100	25100		J3E		Ship/Shore and Intership Communication.

Carrier Frequency (kHz)		Channel	Class of Emission	CCG Area(s) in Use	Remarks
Ship	Coast				
25103	25103		J3E		Ship/Shore and Intership Communication.
25106	25106		J3E		Ship/Shore and Intership Communication.
25109	25109		J3E		Ship/Shore and Intership Communication.
25112	25112		J3E		Ship/Shore and Intership Communication.
25115	25115		J3E		Ship/Shore and Intership Communication.
25118	25118		J3E		Ship/Shore and Intership Communication.

The assigned frequency is 1.4 kHz higher than the carrier frequency. Please refer to Innovation, Science and Economic Development Canada's RBR-2 for more details.

Table 1-2 - Maritime Mobile Safety and Communication Frequencies VHF

Channel Designator	Frequencies		Class of Emission	Areas Used	Remarks
	MHz (ship)	MHz (coast)			
60	156.025	160.625			
01	156.050	160.650			
1001	156.050	156.050			
61	156.075	160.675	F3E	a, b, d, f	DFO/CCG liaison. Commercial fishing.
02	156.100	160.700		f	Public Correspondence.
62	156.125	160.725	F3E	a, b, d, f	DFO/CCG liaison. Commercial fishing.
03	156.150	160.750			
63	156.175	160.775			
1063	156.175	156.175			
04	156.200	160.800	F3E	a, f	DFO/CCG liaison. Commercial fishing.
64	156.225	160.825			
05	156.250	160.850			
1005	156.250	156.250	F3E	f	VTS
65	156.275	160.875			
1065	156.275	156.275			
06	156.300	156.300	F3E	a, b, c, d, e, f	SAR/Safety Communications between ships and aircraft. Intership.
2006	160.900	160.900	G2B		Experimental – AIS Systems.
66	156.325	160.925			
1066	156.325	156.325	F3E		
07	156.350	160.950			
1007	156.350	156.350	F3E		

Channel Designator	Frequencies		Class of Emission	Areas Used	Remarks
	MHz (ship)	MHz (coast)			
67	156.375	156.375	F3E		
08	156.400	156.400	F3E		
68	156.425	156.425	F3E		
09	156.450	156.450	F3E	b, f	VTS. Intership.
69	156.475	156.475	F3E		
10	156.500	156.500	F3E	b, c, f	VTS. Intership.
70	156.525	156.525	G2B	a, b, c, d[1], f	International Distress and Safety (DSC).
11	156.550	156.550	F3E	a, b, c, f	VTS. Pilotage.
71	156.575	156.575	F3E	a, b, c, e, f	VTS
12	156.600	156.600	F3E	b, c, f	VTS. Port Operations. Pilotage.
72	156.625		F3E		
13	156.650	156.650	F3E	a, b, c, f	VTS. Bridge to Bridge navigational traffic.
73	156.675	156.675	F3E		
14	156.700	156.700	F3E	b, c, f	VTS. Port Operations. Pilotage.
74	156.725	156.725	F3E	a, b, c, f	VTS
15	156.750	156.750	F3E		
75	156.775	156.775	F3E		
16	156.800	156800	F3E	a, b, c, d, e, f	International Distress and Safety (RT).
76	156.825	156.825	F3E		
17	156.850	156.850	F3E		
77	156.875	156.875	F3E		
18	156.900	161.500	F3E		
1018	156.900	156.900	F3E		
78	156.925	161.525	F3E		
1078	156.925	156.925	F3E		Intership for fishing vessels.
2078		161.525	F3E		
19	156.950	161.550	F3E	a, b, c, d, e, f	CCG MSI Broadcasts.
1019	156.950		F3E	a, b, c, d, f	DFO/CCG liaison.
2019		161.550	F3E		
79	156.975	161.575	F3E		
1079	156.975	156.975	F3E		
2079		161.575	F3E		
20	157.000	161.600	F3E		
1020	157.00	157.000	F3E		
2020		161.600	F3E		

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[1] Iqaluit MCTS Centre – during navigational season

Channel Designator	Frequencies		Class of Emission	Areas Used	Remarks
	MHz (ship)	MHz (coast)			
80	157.025	161.625	F3E		
1080	157.025	157.025	F3E		
21	157.050	161.650	F3E	a, b, c, f	CCG CMB.
1021	157.050		F3E	a, b, c, f	DFO/CCG liaison.
81	157.075	161.675	F3E		
22	157.100	161.700	F3E		
1022	157.100		F3E	a, b, c, d, e, f	DFO/CCG liaison.
82	157.125	161.725	F3E		DFO/CCG liaison.
23	157.150	161.750	F3E	a, b, c	Public Correspondence.
1023		161.750	F3E	c	CCG CMB.
83	157.175	161.775	F3E	a, b, c, f	CCG MSI Broadcast.
1083	157.175		F3E	a, b, c, f	DFO/CCG liaison.
24	157.200	161.800	F3E	b, c	Public Correspondence.
1024	157.200		F3E		
2024	161.800	161.800	G2B		VDES
84	157.225	161.825	F3E	b, c, f	Public Correspondence.
1084	157.225		F3E		
2084	161.825	161.825	G2B		VDES
25	157.250	161.850	F3E	a, b, c	CCG MSI Broadcast. Public Correspondence.
1025	157.250		F3E		
2025	161.850	161.850	G2B		VDES
85	157.275	161.875	F3E	a, b, c, d, e, f	Public Correspondence.
1085	157.275		F3E		CCG CMB.
2085		161.875	G2B		VDES
26	157.300	161.900	F3E	a, b, c, d, e, f	CCG MSI Broadcast. Public Correspondence.
1026	157.300		F3E		
2026		161.900	F3E		
86	157.325	161.925	F3E		
1086	157.325		F3E		
2086		161.925	F3E		
27	157.350	161.950	F3E	b, c	Public Correspondence.
1027	157.350	157.350	F3E		CCG CMB.
2027	161.950	161.950	G2B		ASM-1 (effective 01/2019).
87	157.375	157.375	F3E	a, b, c	Port operations. Ship movement.

Channel Designator	Frequencies		Class of Emission	Areas Used	Remarks
	MHz (ship)	MHz (coast)			
28	157.400	162.000	F3E		
1028	157.350		F3E		CCG MSI Broadcast.
2028	162.000	162.000	G2B	c	ASM-2 (effective 01/2019).
88	157.425	157.425	F3E	a, b, c	Port Operations. Ship movement.
87B	161.975	161.975	G2B	a, b, c, f	AIS-1.
88B	162.025	162.025	G2B	a, b, c	AIS-2.
WX2		162.400	F3E	c	CCG CMB.
WX3		162.475	F3E	c	CCG CMB.
WX1		162.550	F3E	c	CCG CMB.

Notes: Reference VHF:

"A" following a channel number means Simplex Operation on the ship station transmitting frequency.

"B" following a channel number means ship stations receive only on the higher coast station transmission frequency.

1.3 GENERAL INFORMATION ON MCTS LISTINGS

a) Transmit and receive frequencies are listed in kHz and MHz, where applicable.

b) The numbered areas mentioned in the remarks column of centres providing communications and special services are shown on the marine weather forecasts maps, and are listed in detail under the heading "Weather Forecast Areas" in Part 5.

c) Frequencies for which the J3E single sideband modes of emission are shown in the MCTS Centre listings are designated by the carrier frequencies. The assigned frequencies are 1.4 kHz higher than the carrier frequencies listed. (This note also applies to the medium and high radiotelephone frequencies listed in the "Canadian Maritime Mobile Safety and Public Correspondence Communication Frequencies", Section 1.2).

Table 1-3 - Legend for MCTS Centre Listings

Abbreviation/Acronym	Explanation
AIS	Automatic Identification System
ASM	Application Specific Messaging
CMB	Continuous Marine Broadcast
DF	Direction Finding
DFO / CCG	Department of Fisheries and Oceans / Canadian Coast Guard
DSC	Digital Selective Calling
F1B	Radioteletype
F3E	Radiotelephony, Frequency Modulation
G2B	Phase modulation, digital information, automatic reception.
H+	This symbol followed by a number indicates minutes past the hour.
HF NBDP	High Frequency Narrow-Band Direct-Printing Telegraphy

Abbreviation/Acronym	Explanation
J3C	Facsimile – Single-Sideband, Suppressed Carrier
J3E	Radiotelephony – Single-Sideband, Suppressed Carrier
MCTS	Marine Communications and Traffic Services
MMSI	Maritime Mobile Service Identity
MSI	Maritime Safety Information (Weather / Ice / Navigational Warnings)
NAVTEX	Narrow Band Direct Printing telegraphy
NOTSHIP	Notice to Shipping – Refer to Part 4
RT	Radiotelephony
SC	Ship Control (Canal and Locks Operations)
UTC	Coordinated Universal Time
VDES	VHF Data Exchange System (pending development)
VTS	Vessel Traffic Services

1.4 TELEPHONE / FACSIMILE/ TELEX DIRECTORY

Table 1-4 - Telephone / Facsimile / Telex Directory

Service	Telephone Number	Facsimile Number	Telex Number	Answer Back Code	MMSI
MCTS Centre (call sign)					
Halifax, N.S. (VCS)	902-426-9750	902-426-4483	2101922510		003160016
Iqaluit, Nvt. (VFF) *Service available in English and in French.*	867-979-5269 East 867-979-0310 West	867-979-4264	063-15529	NORDREG CDA	003160023
Labrador, (Goose Bay) N.L. (VOK)	709-896-2252	709-896-8455			003160022
Les Escoumins, Que. (VCF) *Service available in English and in French.*	418-233-2194	418-233-3299			003160026
Placentia, N.L. (VCP)	709-227-2181 709-227-2182	709-227-5637			003160019
Port aux Basques, N.L. (VOJ) *Service available in English and in French.*	709-695-2167	709-695-7784			003160018
Prescott, Ont. (VBR) *Service available in English and in French.*	613-925-4471	613-925-4519			003160029
Québec, Que. (VCC) *Service available in English and in French.*	418-648-4427	418-648-7244			003160027
Sarnia, Ont. (VBE)	519-336-4003	519-336-0229			003160030
Sydney, N.S. (VCO) *Service available in English and in French.*	902-564-7751 1-800-686-8676	902-564-7662			003160017

Service	Telephone Number	Facsimile Number	Telex Number	Answer Back Code	MMSI
Prince Rupert, B.C. (VAJ)	250-627-3070	250-624-9075			003160013
Victoria, B.C. (VAK)	250-363-6333	250-363-6556			003160011
ECAREG CANADA					
Dartmouth, N.S.	902-426-4956	902-426-4483			
Les Escoumins, Que. *Service available in English and in French.*	418-233-3483	418-233-3299			
NORDREG CANADA					
Iqaluit, Nvt. Operational from approximately mid-May until late December.	867-979-5724	867-979-4264	063-15529	NORDREG CDA	003160023
Prescott, Ont. Operational from approximately late December until mid-May.	613-925-4471	613-925-4519			
VTS Offshore					
Prince Rupert, B.C.	250-627-3071				
NAVAREA XVII and XVIII					
Prescott, Ont.	613-925-0666	613-925-4519			

1.5 JOINT RESCUE COORDINATION CENTRE (JRCC) / MARITIME RESCUE SUB-CENTRE (MRSC)

JRCC Halifax, Nova Scotia

Service available in English and in French

Telephone: 1-800-565-1582 Maritimes Region
1-800-563-2444 Newfoundland and Labrador Region
902-427-8200 Satellite, Local or out of area

Facsimile: 902-427-2114

Email: jrcchalifax@sarnet.dnd.ca

MRSC Québec, Québec

Service available in English and in French

Telephone: 1-800-463-4393 Quebec Region
418-648-3599 Satellite, Local or out of area

Facsimile: 418-648-3614

Email: mrscqbc@dfo-mpo.gc.ca

JRCC Trenton, Ontario

Telephone:	1-800-267-7270 In Canada 613-965-3870 Satellite, Local or out of area
Facsimile:	613-965-7279
Email:	jrcctrenton@sarnet.dnd.ca

JRCC Victoria, British Columbia

Telephone:	1-800-567-5111 British Columbia and Yukon 250-413-8933 Satellite, Local or out of area #727 Cellular (#SAR)
Email:	jrccvictoria@sarnet.dnd.ca

1.6 ICEBREAKING SERVICES

Ice Atlantic

Telephone: 709-772-2078

Ice Montreal

Telephone: 1-855-201-0086 / US-Canada line: 1-844-672-8037

Facsimile: 514-283-1752

1.7 REGIONAL OFFICE ADDRESSES

Atlantic Region

Regional Superintendent
Marine Communications and Traffic Services
Canadian Coast Guard
P.O. Box 1000
Dartmouth NS B2Y 3Z8

Telephone: 902-426-4564

Central and Arctic Region

Service available in English and in French

Regional Superintendent
Marine Communications and Traffic Services
Canadian Coast Guard
101 Champlain Boulevard
Québec QC G1K 7Y7

Telephone: 418-648-5522
Facsimile: 418-648-4877

Western Region

Regional Superintendent
Marine Communications and Traffic Services
Canadian Coast Guard
Institute of Ocean Sciences
9860 West Saanich Road
Sidney BC V8L 5T5

Telephone: 250-363-8904 (Regional Administrative Assistant)

Email: mcts@dfo-mpo.gc.ca

1.8 REGIONAL NOTICES TO SHIPPING (NOTSHIP) ISSUING AUTHORITIES

Port aux Basques MCTS Centre

Service available in English and in French

Canadian Coast Guard
49 Stadium Rd.
P.O. Box 99
Port aux Basques NL A0M 1C0

Telephone: 709-695-2168 or 1-800-563-9089
Facsimile: 709-695-7784

Email: notshippax@dfo-mpo.gc.ca

Sydney MCTS Centre

Service available in English and in French

Canadian Coast Guard
1190 Westmount Road
Sydney NS B1R 2J6

Telephone: 902-564-7751 or 1-800-686-8676
Facsimile: 902-564-7662

Email: notshipssyd@mar.dfo-mpo.gc.ca

Les Escoumins MCTS Centre

Service available in English and in French

Canadian Coast Guard
35 rue Otis
Les Escoumins QC G0T 1K0

Telephone: 418-233-2308
Facsimile: 418-233-3299

Email: opsavis@dfo-mpo.gc.ca
Website: http://www.marinfo.gc.ca/en/avisecrits/index.asp

Iqaluit MCTS Centre

Operational from approximately mid-May until late December
Service available in English and in French

Canadian Coast Guard
P.O. Box 189
Iqaluit NU X0A 0H0

"A" Series NOTSHIPs

Telephone:	867-979-5269
Facsimile:	867-979-4264
Email:	IqaNordreg@innav.gc.ca
Website:	http://www.ccg-gcc.gc.ca/eng/CCG/Notship-Home

"H" Series NOTSHIPs

Telephone:	867-979-0310
Facsimile:	867-979-4264
Email:	Iqamck01@innav.gc.ca
Website:	http://www.ccg-gcc.gc.ca/eng/CCG/Notship-Home

Prescott MCTS Centre

Service available in English and in French

Canadian Coast Guard
401 King Street West
P.O. Box 1000
Prescott ON K0E 1T0

"C" Series NOTSHIPs

Telephone:	613-925-0666
Facsimile:	613-925-4519
Email:	CA.XCA-NotshipDesk@dfo-mpo.gc.ca
Website:	http://www.ccg-gcc.gc.ca/eng/CCG/Notship-Home

MCTS Western Regional Office

Martine Communications and Traffic Services
Canadian Coast Guard
Institute of Ocean Sciences
9860 West Saanich Road
Sidney BC V8L 5T5

Telephone:	250-363-8904 (Regional Administrative Assistant)
Email:	NOTSHIP.Western@innav.gc.ca

PART 2 FACILITIES INFORMATION

2.1 MARINE COMMUNICATIONS AND TRAFFIC SERVICES CENTRES

2.1.1 *Halifax, Nova Scotia*

MMSI: 003160016 Call Sign: VCS

Hours: H24
Radio Services in English and in French

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Service call Halifax Coast Guard Radio.

For Vessel Traffic Services call Halifax Traffic or Fundy Traffic – refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Halifax MCTS Centre
10 Hudson Way
Dartmouth NS B2Y 3Z8

Telephone:	902-426-9750 MCTS Operations 1-888-528-6444 MCTS Operations, Toll-Free 902-486-5472 Commercial Public Correspondence Service 902-426-9738 Officer-in-Charge 902-426-4956 ECAREG
Facsimile:	902-426-4483
Telex:	2101922510
Email:	hlxecareg1@innav.gc.ca ECAREG Canada Supervisor.mcts-halifax@dfo-mpo.gc.ca

Halifax MCTS Centre VHF/DF Advisory Service

A VHF/DF Advisory Service is available to vessels within range of the receiver sites located at Cape Blomidon, Saint John, Tiverton, Yarmouth, Lockeport, Kingsburg, Sambro, Ecum Secum and Fox Island. Information concerning position, bearing and distance may be provided for use at the discretion of the user.

Table 2-1 - Halifax MCTS/VCS - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Sambro 44°28'21"N 063°37'13"W	Ch16 Ch26 Ch27 Ch70			VHF Direction Finding service is available. Ch26 and Ch27: Facilities are available for connecting ships directly to the commercial telephone system on shore.
		2182J3E 2514J3E 2582J3E		
Ecum Secum 44°57'53"N 062°08'56"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Kingsburg 44°16'32"N 064°17'15"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24, Ch26, 2118 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
			2182 2118 2206	
Fox Island 45°19'47"N 061°04'46"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24, Ch26, 2118 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
			2182 2118 2206	
Shannon Hill 44°41'03"N 063°36'35"W	Ch12 Ch14 Ch16 Ch70			
Chebucto Head 44°30'26"N 063°31'24"W	Ch12 Ch14 Ch16			
Yarmouth, NS 43°44'39"N 066°07'21"W (Chebogue)	Ch14 Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
		2182J3E 2538J3E 2582J3E		
Lockeport, NS 43°39'49"N 065°07'47"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24, Ch26, 2142 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
			2182 2142 2206	

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Saint John, N.B. 45°14'01"N 065°59'05"W (Red Head)	Ch12 Ch14 Ch16 Ch24 Ch26 Ch70 Ch71			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Cape Blomidon, N.S. 45°13'55"N 064°24'05"W	Ch16 Ch24 Ch26 Ch70 Ch71			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Grand Manan, N.B. 44°36'03"N 066°54'22"W	Ch14 Ch16 Ch24 Ch26 Ch70			Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Scotch Mountain, N.B. (NAD 27) 45°45'48"N 065°47'36"W	Ch16 Ch27 Ch70			Operational approximately mid-May to mid-November. Ch27: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Letite, N.B. 45°02'20"N 066°53'33"W	Ch14			
Tiverton, N.S. 44°23'40"N 066°13'36"W	Ch12 Ch14 Ch16 Ch70			VHF Direction Finding service is available.

Table 2-2 - Halifax MCTS/VCS - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
01:40	Chebogue	2749J3E	Radiotelephony (English followed by French) • Technical marine synopsis, forecasts and wave height forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine) and Offshore Waters (Gulf of Maine to the Hague Line). • Notices to Shipping in areas Bay of Fundy, South and West Coast Nova Scotia.
02:40	Sambro	2749J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 203 to 214. • Notices to Shipping in South Coast Nova Scotia area. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel.

Time UTC	Site	Frequency or Channel	Contents
03:20	Chebogue	518F1B	NAVTEX: (U) English • Notices to Shipping.
03:30	Chebogue	490F1B	NAVTEX: (V) French • Notices to Shipping.
07:20	Chebogue	518F1B	NAVTEX: (U) English • Weather and wave height forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine).
07:30	Chebogue	490F1B	NAVTEX: (V) French • Weather and wave height forecasts for marine areas 201 to 208.
08:10	Sambro	2749J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 203 to 214. • Notices to Fish Harvesters (when available).
10:40	Chebogue	2749J3E	Radiotelephony (English followed by French) • Technical marine synopsis, forecasts and wave height forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine) and Offshore Water (Gulf of Maine to the Hague Line). • Notices to Fish Harvesters (when available).
11:20	Chebogue	518F1B	NAVTEX: (U) English • Weather and seastate forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine).
11:30	Chebogue	490F1B	NAVTEX: (V) French • Weather and seastate forecasts for marine areas 201 to 208.
15:20	Chebogue	518F1B	NAVTEX: (U) English • Notices to Shipping.
15:30	Chebogue	490F1B	NAVTEX: (V) French • Notices to Shipping.
15:40	Sambro	2749J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 203 to 214. • Notices to Shipping in South Coast Nova Scotia area. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel.

Time UTC	Site	Frequency or Channel	Contents
16:40	Chebogue	2749J3E	Radiotelephony (English followed by French) • Technical marine synopsis, forecasts and wave height forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine) and Offshore Waters (Gulf of Maine to the Hague Line). • Notices to Shipping for areas Bay of Fundy, South and West Coast Nova Scotia.
19:20	Chebogue	518F1B	NAVTEX: (U) English • Weather and seastate forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine).
19:30	Chebogue	490F1B	NAVTEX: (V) French • Weather and seastate forecasts for marine areas 201 to 208.
20:40	Chebogue	2749J3E	Radiotelephony (English followed by French) • Technical marine synopsis, forecasts and wave height forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine) and Offshore Waters (Gulf of Maine to the Hague Line). • Notices to Fish Harvesters (when available).
21:20	Sambro	2749J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 203 to 214. • Notices to Fish Harvesters (when available).
23:20	Chebogue	518F1B	NAVTEX: (U) English • Weather and seastate forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine).
23:30	Chebogue	490F1B	NAVTEX: (V) French • Weather and seastate forecasts for marine areas 201 to 208.

Time UTC	Site	Frequency or Channel	Contents
Continuous	Sambro Fox Islands	Ch21B	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 203 to 214. • Notices to Shipping in South Coast Nova Scotia area. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Notices to Fish Harvesters (when available).
	Ecum Secum	Ch83B	
Continuous	Red Head	Ch21B	Radiotelephony (English followed by French) • Technical marine synopsis, forecasts and wave height forecasts for marine areas 201 to 208. • U.S. weather forecasts for Coastal Waters (Eastport to Schoodic Point, Maine) and Offshore Waters (Gulf of Maine to the Hague Line). • Notices to Shipping for areas Bay of Fundy, South and West Coast Nova Scotia. • Notices to Fish Harvesters (when available).
	Chebogue Cape Blomidon	Ch83B	

2.1.2 *Iqaluit, Nunavut*

MMSI: 003160023 Call Sign: VFF

Hours: H24
Services in English and in French.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

Open from approximately mid-May until late-December.

Opening and closing will be announced by Notice to Shipping.

For Radio Services call Iqaluit Coast Guard Radio.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Iqaluit MCTS Centre / NORDREG CANADA
P.O. Box 189
Iqaluit NU X0A 0H0

Telephone: 867-979-5269 MCTS Operations (East)
867-979-0310 MCTS Operations (West)
867-979-5724 NORDREG Operations
867-979-5260 Officer-in-Charge (Administration)

Facsimile: 867-979-4264 MCTS/NORDREG Operations

Telex (Telefax):063-15529 NORDREG CDA

Email: IQANORDREG@INNAV.GC.CA (East)
Iqamck01@innav.gc.ca (West)

Table 2-3 - Iqaluit MCTS/VFF - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Iqaluit 63°43'52"N 068°32'32"W	Ch16 Ch26			This site is operational approximately mid-June to late-December.
		2182J3E	2182	
		2582J3E	2206	
	403	4363J3E	4071	
	603	6507J3E	6206	
	812	8752J3E	8228	
	1201	13077J3E	12230	
		4207.5F1B	4207.5	
		6312.0F1B	6312.0	
		8414.5F1B	8414.5	
		12577.0F1B	12577.0	
		16804.5F1B	16804.5	

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
		4177.5F1B	4177.5	
		6268F1B	6268	
		8376.5F1B	8376.5	
		12520F1B	12520	
		16695F1B	16695	
		4125J3E	4125	
		6215J3E	6215	
		8291J3E	8291	
		12290J3E	12290	
		16420J3E	16420	
Churchill 58°46'29"N 094°11'22"W	Ch16			This site is operational only during navigation season. July 1 to October 31, approximately.
	Ch26			
Killinek 60°25'27"N 064°50'30"W		2182J3E	2182	This site is operational approximately early July to late-December.
		2514J3E	2118	
		2582J3E	2206	
	403	4363J3E	4071	
Coral Harbour 64°09'01"N 083°22'22"W		2182J3E	2182	This site is operational mid-July to late-October.
		2514J3E	2118	
		2582J3E	2206	
	403	4363J3E	4071	
	603	6507J3E	6206	
	812	8752J3E	8228	
	1201	13077J3E	12230	
Resolute 74°44'47"N 095°00'11"W	Ch16			This site is operational approximately mid-July to late-October.
	Ch26			
		2182J3E	2182	
		2582J3E	2206	
	403	4363J3E	4071	
	812	8752J3E	8228	
			4207.5	
			6312.0	
			8414.5	
			12577.0	
			16804.5	
			4177.5	
			6268	
			8376.5	
			12520	
			16695	
			4125	
			6215	
			8291	
			12290	
			16420	
Hay River 60°50'27"N 115°46'12"W	403	4363J3E	4071	This site is operational approximately mid-May to late-October.
		5803J3E	5803	
		6218.6J3E	6218.6	
	601	6501J3E	6200	
	826	8794J3E	8270	

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Yellowknife 62°25'45"N 114°24'44"W	Ch16 Ch85			This site is operational approximately mid-May to late-October.
Enterprise 60°36'30"N 116°13'13"W	Ch16 Ch26			This site is operational approximately mid-May to late-October.
Inuvik 68°19'30"N 133°35'47"W		2182J3E	2182	This site is operational approximately mid-May to late-October.
		2558J3E	2142	
	403	4363J3E	4071	
		5803J3E	5803	
		6218.6J3E	6218.6	
	601	6501J3E	6200	
	826	8794J3E	8270	
	1201	13077J3E	12230	
Parson's Lake 68°53'38"N 133°56'31"W	Ch16 Ch26			This site is operational approximately mid-May to late-October.
Cambridge Bay 69°06'53"N 105°01'11"W	Ch16 Ch26			This site is operational approximately early July to mid-October.
		2182J3E	2182	
		2558J3E	2142	
	403	4363J3E	4071	
		5803J3E	5803	
	601	6501J3E	6200	
	826	8794J3E	8270	

Table 2-4 - Iqaluit MCTS/VFF - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
01:00	Resolute	3253J3C	Radiofacsimile: Weather Charts • Marine Surface Analysis (Arctic). • Marine Wind Prognosis (Arctic).
	Iqaluit	7710J3C	
	Inuvik	8456J3C	
01:10	Coral Harbour	2514J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 155, 156, 157, 158, 162, 163, 311 and 312. • Following areas on request: 151, 152, 153, 154, 159, 160, 161, 164 and 310. • Notices to Shipping "Series A" for all NORDREG waters east of 106W and along the Labrador coast southward to 58N, including Hudson Strait, Hudson Bay, Ungava Bay, Foxe Basin, James Bay and Chesterfield Inlet to Baker Lake.
	Coral Harbour	6507J3E	
01:15	Inuvik	5803J3E	Radiotelephony • Technical marine synopsis for Western Arctic waters (if applicable for Mackenzie River and Great Slave Lake area). • Marine forecast for Great Slave Lake (Area 180). • Marine forecast for Mackenzie River (Area 110) and Mackenzie Delta. • ODAS Weather Buoys 45141 and 45150. • Notices to Shipping (H-Series).
	Hay River	4363J3E	
	Parson's Lake and Enterprise	Ch26	
	Yellowknife	Ch85	

Time UTC	Site	Frequency or Channel	Contents
02:00	Resolute	3253J3C	Radiofacsimile: Ice Charts • Transmitted from Resolute: Ice analysis: Baffin Bay, Approaches to Resolute, Resolute-Byam, Eureka Sound, McClure Strait, Parry Channel and Queen Maud Gulf. • Transmitted from Iqaluit: Ice analysis: Hudson Bay south, Hudson Bay north, Hudson Strait, Foxe Basin, Labrador Coast, Davis Strait, Baffin Bay. • Transmitted from Inuvik: Ice Analysis: Amundsen Gulf, Queen Maud Gulf, McClure Strait and Beaufort Sea/Alaskan Coast.
	Iqaluit	7710J3C	
	Inuvik	8456J3C	
02:35	Cambridge Bay	4363J3E	Radiotelephony • Technical marine synopsis for Western Arctic waters. • Forecasts for marine areas 111 to 122 inclusive. • Notices to Shipping "Series A" for all NORDREG waters west of Taloyoak.
	Inuvik	6218.6J3E	
03:00	Iqaluit	490F1B	NAVTEX: (S) French • Weather forecasts for marine areas 143, 144, 145, 147, 148, 149 and 150.
03:10	Iqaluit	518F1B	NAVTEX: (T) English • Weather forecasts for marine areas 143, 144, 145, 147, 148, 149 and 150.
03:30	Iqaluit	8416.5F1B	HF NBDP • METAREA bulletins for METAREAS XVII and XVIII within Canadian waters. • NAVAREA warnings for NAVAREAs XVII and XVIII.
06:00	Iqaluit	3253J3C	Radiofacsimile: Weather Charts • Marine Surface Analysis (Arctic). • Marine Wind Prognosis (Arctic).
	Resolute	7710J3C	
	Inuvik	4292J3C	
07:00	Iqaluit	3253J3C	Radiofacsimile: Ice Charts • Transmitted from Iqaluit: Ice Analysis: Hudson Bay south, Hudson Bay north, Hudson Strait, Foxe Basin, Labrador Coast, Davis Strait, Baffin Bay. • Transmitted from Resolute: Ice Analysis: Baffin Bay, Approaches to Resolute, Resolute-Byam, Eureka Sound, McClure Strait, Parry Channel and Queen Maud Gulf. • Transmitted from Inuvik: Ice Analysis: Amundsen Gulf, Queen Maud Gulf, McClure Strait and Beaufort Sea/Alaskan Coast.
	Resolute	7710J3C	
	Inuvik	4292J3C	
07:00	Iqaluit	490F1B	NAVTEX: (S) French • Safety Notices to Shipping "Series A" for NORDREG waters bound by marine areas 143, 144, 145, 147, 148, 149 and 150. • Ice hazard bulletin for marine areas 143, 144, 145, 147, 148, 149 and 150.
07:10	Iqaluit	518F1B	NAVTEX: (T) English • Safety Notices to Shipping for "Series A" for NORDREG waters bound by marine areas 143, 144, 145, 147, 148, 149 and 150. • Ice hazard bulletin for marine areas 143, 144, 145, 147, 148, 149 and 150.

Time UTC	Site	Frequency or Channel	Contents
10:00	Resolute	3253J3C	Radiofacsimile: Weather Charts • Marine Surface Analysis (Arctic). • Marine Wind Prognosis (Arctic).
	Iqaluit	7710J3C	
	Inuvik	8456J3C	
11:00	Resolute	3253J3C	Radiofacsimile: Ice Charts • Transmitted from Resolute: Ice Analysis: Baffin Bay, Approaches to Resolute, Resolute-Byam, Eureka Sound, McClure Strait, Parry Channel and Queen Maud Gulf. • Transmitted from Iqaluit: Ice Analysis: Hudson Bay south, Hudson Bay north, Hudson Strait, Foxe Basin, Labrador Coast, Davis Strait, Baffin Bay. • Transmitted from Inuvik: Ice Analysis: Amundsen Gulf, Queen Maud Gulf, McClure Strait and Beaufort Sea/Alaskan Coast.
	Iqaluit	7710J3C	
	Inuvik	8456J3C	
11:00	Iqaluit	490F1B	NAVTEX: (S) French • Weather forecast for marine areas 143, 144, 145, 147, 148, 149 and 150.
11:10	Iqaluit	518F1B	NAVTEX: (T) English • Weather forecast for marine areas 143, 144, 145, 147, 148, 149 and 150.
12:40	Resolute	2582J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 125, 135, 136, 137 and 138. • Notices to Shipping "A Series" for all NORDREG waters bound by Shipping Safety Control Zones 1, 2, 3, 5, 6, 9 and 13.
	Resolute	4363J3E	
13:15	Inuvik	5803J3E	Radiotelephony • Technical marine synopsis for Western Arctic waters (if applicable for Mackenzie River and Great Slave Lake area). • Marine forecast for Great Slave Lake (Area 180). • Marine forecast for Mackenzie River (Area 110) and Mackenzie Delta. • ODAS Weather Buoys 45141 and 45150. • Notices to Shipping (H-Series).
	Hay River	4363J3E	
	Parson's Lake and Enterprise	Ch26	
	Yellowknife	Ch85	
13:20	Coral Harbour	2514J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 155, 156, 157, 158, 162, 163, 311 and 312. • Following marine areas on request: 151, 152, 153, 154, 159, 160, 161, 164 and 310. • Notices to Shipping "A Series" for all NORDREG waters east of 106W and along the Labrador coast southward to 58N, including Hudson Strait, Hudson Bay, Ungava Bay, Foxe Basin, James Bay and Chesterfield Inlet to Baker Lake.
	Coral Harbour	6507J3E	

Time UTC	Site	Frequency or Channel	Contents
14:10	Killinek	2514J3E	Radiotelephony • Technical marine synopsis and forecasts for areas: 139 to 150 and 228, 229 and 230. • Following marine areas on request: 137 and 138. • Notices to Shipping "A Series" for all NORDREG waters east of 106W and along the Labrador coast southward to 58N bound by Shipping Safety Control Zones 9, 10 and 15, including Ungava Bay.
	Iqaluit	2582J3E	
	Iqaluit	4363J3E	
	Iqaluit	6507J3E	
14:35	Cambridge Bay	4363J3E	Radiotelephony • Technical marine synopsis for Western Arctic waters. • Forecasts for marine areas 111 to 122 inclusive. • Notices to Shipping "A Series" for all NORDREG waters west of Taloyoak.
	Inuvik	6218.6J3E	
15:00	Iqaluit	490F1B	NAVTEX: (S) French • Weather forecasts for marine areas 143, 144, 145, 147, 148, 149 and 150.
15:10	Iqaluit	518F1B	NAVTEX: (T) English • Weather forecasts for marine areas 143, 144, 145, 147, 148, 149 and 150.
15:30	Iqaluit	8416.5F1B	HF NBDP • METAREA bulletins for METAREAS XVII and XVIII within Canadian waters. • NAVAREA warnings for NAVAREAS XVII and XVIII.
17:05	Cambridge Bay	4363J3E	Radiotelephony • Ice boundary information. • Ice forecasts for marine areas 111 to 122 and 125, 135, 136, 137, 138, 139, 140, 141, 142, 144, 145, 146, 147, 148, 149, 150, 155, 156, 157, 158, 162, 163, 228, 229, 230, 311 and 312 for Hudson Bay and Foxe Basin.
	Inuvik	6218.6J3E	
	Coral Harbour/Killinek	2514J3E	
	Iqaluit/Resolute	2582J3E	
	Iqaluit/Resolute	4363J3E	
	Coral Harbour/Iqaluit	6507J3E	
19:00	Iqaluit	490F1B	NAVTEX: (S) French • Safety Notices to Shipping "A Series" for NORDREG waters bound by marine areas 143, 144, 145, 147, 148, 149 and 150. • Ice hazard bulletin for marine areas 143, 144, 145, 147, 148, 149 and 150.
19:10	Iqaluit	518F1B	NAVTEX: (T) English • Safety Notices to Shipping "A Series" for NORDREG waters bound by marine areas 143, 144, 145, 147, 148, 149 and 150. • Ice hazard bulletin for marine areas 143, 144, 145, 147, 148, 149 and 150.
21:00	Iqaluit	3253J3C	Radiofacsimile: Weather Charts • Marine Surface Analysis (Arctic). • Marine Wind Prognosis (Arctic).
	Resolute	7710J3C	
	Inuvik	4292J3C	

Time UTC	Site	Frequency or Channel	Contents
22:00	Iqaluit	3253J3C	Radiofacsimile: Ice Charts • Transmitted from Iqaluit: Ice Analysis: Hudson Bay south, Hudson Bay north, Hudson Strait, Foxe Basin, Labrador Coast, Davis Strait, Baffin Bay. • Transmitted from Resolute: Ice Analysis: Baffin Bay, Approaches to Resolute, Resolute-Byam, Eureka Sound, McClure Strait, Parry Channel and Queen Maud Gulf. • Transmitted from Inuvik: Ice Analysis: Amundsen Gulf, Queen Maud Gulf, McClure Strait and Beaufort Sea/Alaskan Coast.
	Resolute	7710J3C	
	Inuvik	4292J3C	
22:35	Killinek	2514J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 139 to 150 and 228, 229 and 230. • Following marine areas on request: 137 and 138. • Notices to Shipping "A Series" for all NORDREG waters east of 106W and along the Labrador coast southward to 58N bound by Shipping Safety Control Zones 9, 10 and 15, including Ungava Bay.
	Iqaluit	2582J3E	
	Iqaluit	4363J3E	
	Iqaluit	6507J3E	
23:00	Iqaluit	490F1B	NAVTEX: (S) French • Weather forecast for marine areas 143, 144, 145, 147, 148, 149 and 150.
23:10	Iqaluit	518F1B	NAVTEX: (T) English • Weather forecast for marine areas 143, 144, 145, 147, 148, 149 and 150.
23:10	Resolute	2582J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 125, 135, 136, 137 and 138. • Notices to Shipping "A Series" for all NORDREG waters bound by Shipping Safety Control Zones 1, 2, 3, 5, 6, 9 and 13.
	Resolute	4363J3E	

Iqaluit MCTS/VFF – Radiofacsimile Transmission Details

Modulation: J3C (FM)
Drum speed: 120 rpm
Index of cooperation: 576
Power: 1 KW
Frequencies: 3251.1 kHz, 7708.1 kHz (USB)
Frequencies: 3253 kHz, 7710 kHz (FSK)
Frequencies: 4290.1 kHz, 8454.1 kHz (USB)
Frequencies: 4292 kHz, 8456 kHz (FSK)

For correct reception of this broadcast on WMO standard facsimile recorders requiring 2300 Hz for White and 1500 Hz for Black with a 1900 Hz centre frequency, radio receivers should be tuned in the UPPER SIDEBAND MODE to the ABOVE frequencies

2.1.3 *Labrador (Goose Bay), Newfoundland and Labrador*

MMSI: 003160022 Call Sign: VOK

Hours: H24
Services in English only.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services call Labrador Coast Guard Radio.

For Vessel Traffic Services call Belle Isle Traffic – refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Labrador MCTS Centre
P.O. Box 720 Station C
Goose Bay NL A0P 1C0

Telephone: 709-896-2252 MCTS Operations
709-896-0277/0278 Commercial Public Correspondence Service
709-896-5817 Officer-in-Charge

Facsimile: 709-896-8455

Email: Safety.Labrador@innav.gc.ca

Table 2-5 - Labrador MCTS/VOK - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Cartwright 53°42'30"N 057°01'17"W	407	2182J3E 2514J3E 2538J3E 2582J3E 4375.0J3E	2182 2118 2142 2206 4083.0	407, 2118, 2142, 2206 and 4083.0: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Hopedale 55°27'24"N 060°12'30"W	407 605 Ch16 Ch26 Ch70	2182J3E 2514J3E 2538J3E 2582J3E 4375.0J3E 6513J3E	2182 2118 2142 2206 4083.0 6212	407, 605, Ch26, 2118, 2142, 2206, 4083.0 and 6212: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Cartwright 53°43'38"N 056°58'06"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Goose Bay 53°18'12"N 060°31'27"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Nain 56°32'49"N 061°42'49"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
St. Anthony (Newfoundland) 51°30'00"N 055°49'26"W		2182J3E 2514J3E 2582J3E	2182 2118 2206	2118 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Comfort Cove (Newfoundland) 49°16'26"N 054°52'32"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Twillingate (Newfoundland) 49°41'10"N 054°48'00"W	Ch16 Ch24 Ch70			VHF Direction Finding service is available. Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
L'Anse aux Meadows (Newfoundland) 51°34'20"N 055°29'27"W	Ch14 Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Conche (Newfoundland) 50°53'41"N 055°53'03"W	Ch16 Ch26 Ch70			C26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Fox Harbour 52°22'10"N 055°39'42"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Table 2-6 - Labrador MCTS/VOK - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
01:07	St. Anthony	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Ice conditions and forecast for the East Coast of Newfoundland, and the Labrador Coast, south of 54N. • Iceberg Bulletin: Newfoundland Coast and Strait of Belle Isle.
01:37	Cartwright	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Ice Edge and Conditions for Labrador Coast.
	Hopedale	2598J3E	
03:50	Cartwright	518F1B	NAVTEX: (X) • Weather.
07:50	Cartwright	518F1B	NAVTEX: (X) • Weather.

Time UTC	Site	Frequency or Channel	Contents
09:07	St. Anthony	2598J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Ice conditions and forecast for the East Coast of Newfoundland and the Labrador Coast, south of 54N. • Iceberg Bulletin: Newfoundland East Coast and Strait of Belle Isle.
10:07	Cartwright	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Ice conditions and forecast for Labrador Coast.
	Hopedale		
11:07	Cartwright	2598J3E	Radiotelephony • Notices to Shipping: Nearshore (Belle Isle to Cape Chidley), Offshore (North Atlantic, Cape Bauld to Cape Chidley). • Notices to Fish Harvesters (when available).
	Hopedale		
11:50	Cartwright	5181F1B	NAVTEX: (X) • Notices to Shipping.
12:37	St. Anthony	2598J3E	Radiotelephony • Notices to Shipping for an area bounded by Flower's Cove to the west, Cartwright to the north and Cape Freels to the southeast. • Notices to Fish Harvesters (when available).
13:37	St. Anthony	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238.
14:37	Cartwright	2598J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Ice conditions and forecast for Labrador Coast.
	Hopedale	2598J3E	
15:50	Cartwright	518F1B	NAVTEX: (X) • Weather.
19:07	St. Anthony	2598J3E	Radiotelephony • Notices to Shipping for an area bounded by Flower's Cove to the west, Cartwright to the north and Cape Freels to the southeast. • Ice conditions and forecast for the East Coast of Newfoundland, and the Labrador Coast, south of 54N. • Iceberg Bulletin: Newfoundland East Coast and Strait of Belle-Isle. • Notices to Fish Harvesters (when available).
19:37	St. Anthony	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238.
19:50	Cartwright	518F1B	NAVTEX: (X) • Weather.

Time UTC	Site	Frequency or Channel	Contents
20:37	Cartwright	2598J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Ice Edge and Conditions for Labrador Coast. • Notices to Fish Harvesters (when available).
	Hopedale		
23:07	Cartwright	2598J3E	Radiotelephony • Notices to Shipping: Nearshore (Belle Isle to Cape Chidley), Offshore (North Atlantic, Cape Bauld to Cape Chidley).
	Hopedale	2598J3E	
23:50	Cartwright	518F1B	NAVTEX: (X) • NOTSHIPs (summer) Ice (winter).
Continuous Labrador North	Cartwright Nain	Ch83B	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Ice Edge and Conditions for Labrador Coast. • Notices to Shipping: Belle Isle to Cape Chidley. • Notices to Fish Harvesters (when available).
	Goose Bay Hopedale	Ch21B	
Continuous Labrador South	Conche Fox Harbour Comfort Cove	Ch21B	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 235, 237 and 238. • Notices to Shipping for an area bounded by Flower's Cove to the west, Cartwright to the north and Cape Freels to the southeast. • Ice conditions and forecast for the East Coast of Newfoundland, and the Labrador Coast, south of 54N. • Iceberg Bulletin: Newfoundland East Coast and Strait of Belle Isle. • Notices to Fish Harvesters (when available).
	L'Anse aux Meadows Twillingate	Ch83B	

2.1.4 *Les Escoumins, Québec*

MMSI: 003160026 Call Sign: VCF

Hours: H24
Services in English and in French.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services call Les Escoumins Coast Guard Radio.

For Vessel Traffic Services call Escoumins Traffic – refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Les Escoumins MCTS Centre
35 Otis Street
Les Escoumins QC G0T 1K0

Telephone: 418-233-2194 MCTS Operations
418-233-3451 Coast Guard Radio
418-233-3556 Public Correspondence Service
418-233-3483 ECAREG Canada
418-233-2308 Notices to Shipping Office
418-233-2854 Officer-in-Charge (administration)

Facsimile: 418-233-3299

Email: safety.escoumins@innav.gc.ca (Coast Guard Radio)
ecareg.escoumins@innav.gc.ca (ECAREG Canada)
opsavis@dfo-mpo.gc.ca (Notices to Shipping Office)

Les Escoumins MCTS Centre VHF Direction Finding Advisory Service:

A VHF/DF advisory service is available to vessels in difficulty within range of the receiver sites located at Rivière-au-Renard, Cap-aux-Meules, Havre St-Pierre, Natashquan, Newport, Pointe Heath, Mont-Louis, Lac Daigle (Sept-Îles) and Grosses-Roches. Information concerning position, bearing and distance may be provided for use at the discretion of the user.

Table 2-7 - Les Escoumins MCTS/VCF - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Rivière-au-Renard 49°00'25"N 064°24'00"W	Ch16 Ch27			VHF Direction Finding service is available. Ch27: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Cap-aux-Meules 47°23'14"N 061°51'40"W	Ch16 Ch27 Ch70			VHF Direction Finding service is available. Ch27 and 2118: Facilities are available for connecting ships directly to the commercial telephone system on shore.
			2182 2118 2206	
La Vernière 47°21'28"N 061°55'30"W		2182J3E 2514J3E 2582J3E		
Havre St-Pierre 50°16'18"N 063°40'45"W	Ch16 Ch26 Ch70			VHF Direction Finding service is available. Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Natashquan 50°09'06"N 061°47'42"W	Ch16 Ch26 Ch70			VHF Direction Finding service is available. Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
		2182J3E 2582J3E	2182 2206	
Harrington Harbour 50°30'01"N 059°29'17"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
La Romaine 50°12'56"N 060°41'03"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Forillon 48°50'01"N 064°15'24"W	Ch16 Ch85 Ch70			Ch85: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Carleton 48°08'28"N 066°06'32"W	Ch16 Ch70 Ch85			Ch85: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Newport 48°13'24"N 064°47'33"W	Ch16 Ch70 Ch84			VHF Direction Finding service is available. Ch84: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Pointe Heath 49°05'05"N 061°42'09"W	Ch16 Ch84 Ch70			VHF Direction Finding service is available. Ch84: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Mont-Louis 49°12'48"N 065°46'25"W	Ch14 Ch16 Ch26 Ch70			VHF Direction Finding service is available. Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Lac Daigle 50°17'25"N 066°18'36"W	Ch14 Ch16 Ch26 Ch70			VHF Direction Finding service is available. Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Grosses-Roches 48°54'50"N 067°06'37"W	Ch14 Ch16 Ch70 Ch84			VHF Direction Finding service is available. Ch84: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Mont-Joli 48°36'25"N 068°13'33"W	Ch9 Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Les Escoumins 48°19'04"N 069°25'14"W	Ch9 Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Rivière-du-Loup 47°45'35"N 069°36'19"W	Ch9 Ch16 Ch26			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Sacré-Cœur 48°12'50"N 069°52'14"W	Ch9 Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Cap à l'Est 48°22'58"N 070°41'12"W	Ch9 Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Table 2-8 - Les Escoumins MCTS/VCF - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
00:20	Moisie	518F1B	NAVTEX: (C) English • Marine forecasts for areas: 215, 217 to 222, 301 to 304 and 313. *Note: Marine forecasts are replaced by ice information during ice season only.*
00:30	Moisie	490F1B	NAVTEX: (D) French • Marine forecasts for areas: 215, 217 to 222, 301 to 304 and 313. *Note: Marine forecasts are replaced by ice information during ice season only.*
04:20	Moisie	518F1B	NAVTEX: (C) English • Notices to Shipping.
04:30	Moisie	490F1B	NAVTEX: (D) French • Notices to Shipping.
04:37	Natashquan La Vernière	2598J3E 2749J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 215 to 221 and 301 to 302. • Wave height forecasts for marine areas 215, 217, 219, 220, 221, 301 and 302. • Notices to Fish Harvesters (when available).
08:20	Moisie	518F1B	NAVTEX: (C) English • Marine forecasts for marine areas 215, 217 to 222, 301 to 304 and 313.

Time UTC	Site	Frequency or Channel	Contents
08:30	Moisie	490F1B	NAVTEX: (D) French • Marine forecasts for marine area 215, 217 to 222, 301 to 304 and 313.
08:47	Natashquan La Vernière	2598J3E 2749J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 215 to 221 and 301 to 302. • Wave height forecasts for marine areas 215, 217, 219, 220, 221, and 301 to 302.
09:37	Natashquan La Vernière	2598J3E 2749J3E	Radiotelephony • Notices to Shipping. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Notice to Fish Harvesters (when available). • Ice Information.
12:20	Moisie	518F1B	NAVTEX: (C) English • Weather forecasts for marine areas 215, 217 to 222, 301 to 304 and 313.
12:30	Moisie	490F1B	NAVTEX: (D) French • Weather forecasts for marine areas 215, 217 to 222, 301 to 304 and 313.
14:07	Natashquan La Vernière	2598J3E 2749J3E	Radiotelephony • Technical marine synopsis and forecast for marine areas 215 to 221 and 301 to 302. • Wave height forecast for marine areas 215, 217, 219, 220, 221, and 301 to 302.
16:20	Moisie	518F1B	NAVTEX: (C) English • Notices to Shipping.
16:30	Moisie	490F1B	NAVTEX: (D) French • Notices to Shipping.
17:37	Natashquan La Vernière	2598J3E 2749J3E	Radiotelephony • Notices to Fish Harvesters (when available). • Ice Reports. • Notices to Shipping. • Notices to Shipping revising the position of every reported offshore exploration and operation vessel.
20:20	Moisie	518F1B	NAVTEX: (C) English • Marine forecasts for marine areas 215, 217 to 222, 301 to 304 and 313.
20:30	Moisie	490F1B	NAVTEX: (D) French • Marine forecasts for marine areas 215, 217 to 222, 301 to 304 and 313.

Time UTC	Site	Frequency or Channel	Contents
23:17	Natashquan La Vernière	2598J3E 2749J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 215 to 221, 301 and 302. • Wave height forecast for marine areas 215, 217, 219, 220, 221, 301 and 302. • Notice to Fish Harvesters (when available).
Continuous	Forillon Carleton Natashquan Cap-aux-Meules	Ch21B	Radiotelephony • Forecasts for marine areas 215, 216, 217, 218, 219, 220, 221, 301 and 302. • Notices to Shipping for the Gulf of St. Lawrence including the Magdalene Islands, the coast between Sept-Îles and Blanc Sablon, the southern shore of 66W eastward including the Baie des Chaleurs up to Miramichi beach. • Ice Reports. • Notices to Fish Harvesters (when available). • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Wave height forecasts for marine areas 215, 217, 219, 220, 221, 301 and 302.
	Heath Point Harrington Harbour	Ch25B	
	Newport Havre St-Pierre La Romaine	Ch83B	
Continuous	Lac Daigle Grosses-Roches Cap à l'Est	Ch21B	Radiotelephony • Forecasts for marine areas 219, 301, 302, 303, 304, 305 and 313. • Notices to Shipping for the Saguenay River and the St. Lawrence River from Île aux Coudres to a line from Mingan to Cap Gaspé including Port Menier and the western point of Anticosti Island. • Ice information for the Saguenay River and the St. Lawrence River from Île aux Coudres to Cabot and Belle-Isle straits. (when available). • Notices to Fish Harvesters (when available).
	Mont-Louis Mont-Joli Sacré-Cœur	Ch83B	

Hourly weather observations for certain specific locations, technical marine synopsis, other weather forecast areas and MAFOR codes are available upon request.

2.1.5 *Placentia, Newfoundland and Labrador*

MMSI: 003160019 Call Sign: VCP

Hours: H24
Services in English only.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Service call Placentia Coast Guard Radio.

For Vessel Traffic Services call Placentia or St-John's Traffic - refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Placentia MCTS Centre
P.O. Box 389
Placentia NL A0B 2Y0

Telephone: 709-227-2181/2182 MCTS Operations
1-844-592-2770 MCTS Operations Toll-Free
709-227-1027 Commercial Public Correspondence Service
709-227-5731 Officer-in-Charge

Facsimile: 709-227-5637

Email: Safety.Placentia@innav.gc.ca

Table 2-9 - Placentia MCTS/VCP - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
St. Lawrence 46°55'09"N 055°22'45"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
St. Lawrence 46°55'06"N 055°22'45"W		2182J3E 2514J3E 2538J3E 2582J3E	2182 2118 2142 2206	2118 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Cape Pine 46°37'00"N 053°31'58"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Fortune Head 47°04'02"N 055°50'52"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Hermitage 47°33'34"N 055°56'19"W	Ch16 Ch70 Ch85			
Bay L'Argent 47°32'00"N 054°51'46"W	Ch16 Ch27 Ch70			

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Arnold's Cove 47°46'23"N 053°59'59"W	Ch12 Ch16 Ch70			
Freshwater 47°15'44"N 053°59'03"W	Ch12 Ch14 Ch16 Ch70 Ch85			
Cuslett 46°58'28"N 054°09'15"W	Ch14 Ch16 Ch70			
St. John's 47°36'40"N 052°40'01"W	Ch11 Ch12 Ch16 Ch26 Ch70			Ch26, 2118 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
		2182J3E 2514J3E 2582J3E	2182 2118 2206	
Cape Bonavista 48°41'48"N 053°05'18"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Victoria 47°49'54"N 053°18'05"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Lumsden 49°17'14"N 053°35'05"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Table 2-10 - Placentia MCTS/VCP - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
00:07	St-John's	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Ice Edge and Conditions East Newfoundland Coast south of Strait of Belle Isle and approaches.
00:48	St. Lawrence	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Weather and Wave height forecasts for marine area 213.
02:20	Robin Hood Bay	518F1B	NAVTEX: (O) • Weather.
06:20	Robin Hood Bay	518F1B	NAVTEX: (O) • Weather (Notices to Shipping only in winter).

Time UTC	Site	Frequency or Channel	Contents
07:37	St. Lawrence	2598J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Weather forecasts for marine area 213. • Ice Edge and Conditions South Coast east of Penguin Island, East Coast to Cape Freels. • Notices to Fish Harvesters (when available).
08:37	St. John's	2598J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Ice Edge and Conditions East Newfoundland Coast south of Strait of Belle Isle and approaches. • Notices to Fish Harvesters (when available).
10:20	Robin Hood Bay	518F1B	NAVTEX: (O) • Weather (Notices to Shipping only in summer).
11:37	St. Lawrence	2598J3E	Radiotelephony • Notices to Shipping Ramea Island to Cape Ballard. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel.
13:07	St. John's	2598J3E	Radiotelephony • Notice to Shipping: Nearshore (Cape Pine to Twillingate), Offshore (North Atlantic to Cape Bauld). • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel.
14:20	Robin Hood Bay	518F1B	NAVTEX: (O) • Weather.
16:07	St. Lawrence	2598J3E	Radiotelephony • Technical marine synopsis forecasts and wave height forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Weather and Wave height forecasts for marine area 213.
16:37	St. John's	2598J3E	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Ice Edge and Conditions East Newfoundland Coast south of Strait of Belle Isle and approaches.
18:07	St. Lawrence	2598J3E	Radiotelephony • Notices to Shipping Ramea Island to Cape Ballard. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel.
18:20	Robin Hood Bay	518F1B	NAVTEX: (O) • Weather and wave height forecasts (summer) Ice (winter).

Time UTC	Site	Frequency or Channel	Contents
20:07	St. John's	2598J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Ice Edge and Conditions East Newfoundland Coast south of Strait of Belle Isle and approaches.
21:37	St. Lawrence	2598J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Weather forecasts for marine area 213. • Ice Edge and Conditions South Coast east of Penguin Island, East Coast to Cape Freels. • Notices to Fish Harvesters (when available).
22:07	St. John's	2598J3E	Radiotelephony • Notices to Shipping: Nearshore (Cape Pine to Twillingate), Offshore (North Atlantic to Cape Bauld). • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Notices to Fish Harvesters (when available).
22:20	Robin Hood Bay	518F1B	NAVTEX: (O) • Weather (winter) Notices to Shipping/Ice (summer).
Placentia North Continuous	St. John's Cape Bonavista	Ch21B	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Ice Edge and Conditions East Newfoundland Coast south of Strait of Belle Isle and approaches. • Notices to Shipping Cape Pine to Twillingate. • Notices to Fish Harvesters (when available).
	Victoria	Ch83B	
	Lumsden	Ch28B	
Placentia South Continuous	St. Lawrence Bay L'Argent	Ch21B	Radiotelephony • Technical marine synopsis, forecasts and wave height forecasts for marine areas 231, 232, 233, 234, 235, 236, 237 and 238. • Weather and wave height forecasts for marine area 213. • Ice Edge and Conditions South Coast east of Penguin Island, East Coast to Cape Freels. • Notices to Shipping Ramea Island to Cape Ballard. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Notices to Fish Harvesters (when available). • Notices to Shipping Placentia Bay and Approaches, Ferryland Head to Cape St. Mary's on Ch23B only.
	Freshwater	Ch23B	
	Hermitage	Ch28B	
	Cape Pine Fortune Head	Ch83B	

2.1.6 *Port aux Basques, Newfoundland and Labrador*

MMSI: 003160018 Call Sign: VOJ

Hours: H24
Radio Services in English and in French.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services call Port aux Basques Coast Guard Radio.

For Vessel Traffic Services call Port aux Basques Traffic - refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Port aux Basques MCTS Centre
P.O. Box 99
Port aux Basques NL A0M 1C0

Telephone:	709-695-2167 MCTS Operations 709-695-2167 Commercial Public Correspondence Service 709-695-2133 Officer-in-Charge 709-695-2168 NOTSHIP Desk 1-800-563-9089 NOTSHIP Desk, Toll-Free
Facsimile:	709-695-7784
Email:	safety.portauxbasques@innav.gc.ca notshippax@dfo-mpo.gc.ca NOTSHIP Desk

Table 2-11 - Port aux Basques MCTS/VOJ - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Table Mountain 47°41'14"N 059°16'26"W	Ch11 Ch12 Ch16 Ch27 Ch70			Ch27: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Stephenville 48°33'17"N 058°45'32"W		2182J3E 2514J3E 2582J3E	2182 2118 2206	2118 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Pine Tree 48°35'20"N 058°39'54"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Bonne Bay 49°36'10"N 057°57'28"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Mount Moriah 48°58'07"N 058°02'49"W	Ch16 Ch24 Ch70			Ch24: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Ramea Island 47°30'45"N 057°24'31"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Pointe Riche 50°41'59"N 057°24'19"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.

Table 2-12 - Port aux Basques MCTS/VOJ - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
02:07	Stephenville	2598J3E	Radiotelephony (English followed by French) • Technical marine synopsis, forecasts and wave height forecast for marine areas 220, 221, 222 and 231. • Weather forecast and wave height forecast for marine areas 215, 217 and 219.
08:07	Stephenville	2598J3E	Radiotelephony (English followed by French) • Technical marine synopsis and forecasts for marine areas 220, 221, 222 and 231. • Weather forecast for marine areas 215, 217 and 219. • Ice Edge and Conditions for marine areas Northeast Gulf, Gulf Port au Port, Southwest Coast, Cabot Strait, Gulf-Magdalen and Anticosti.
12:07	Stephenville	2598J3E	Radiotelephony (English followed by French) • Notices to shipping from Penguin Island to Cape Norman including Labrador Coast between West Point (Red Bay) and the Québec/Labrador border. • Notices to Fish Harvesters (when available).
15:07	Stephenville	2598J3E	Radiotelephony (English followed by French) • Technical marine synopsis, forecasts and wave height forecast for marine areas 220, 221, 222 and 231. • Weather forecast and wave height forecast for marine areas 215, 217 and 219.
18:37	Stephenville	2598J3E	Radiotelephony (English followed by French) • Notices to Shipping from Penguin Island to Cape Norman including Labrador Coast between West Point (Red Bay) and the Québec/Labrador border. • Ice Edge and Conditions for marine areas Northeast Gulf, Gulf Port au Port, Southwest Coast, Cabot Strait, Gulf-Magdalen and Anticosti.
21:07	Stephenville	2598J3E	Radiotelephony (English followed by French) • Technical marine synopsis and forecasts for marine areas 220, 221, 222 and 231. • Weather forecast for marine areas 215, 217 and 219. • Notices to Fish Harvesters (when available).

Time UTC	Site	Frequency or Channel	Contents
Continuous	Ramea Island Pointe Riche	Ch21B	Radiotelephony (English) • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, and 231. • Weather forecast and wave height forecast for marine areas 215, 217 and 219. • Notices to Shipping from Penguin Island to Cape Norman including Labrador between West Point (Red Bay) and the Québec/Labrador border. • Ice Edge and Conditions for marine areas Northeast Gulf, Gulf Port au Port, Southwest Coast, Cabot Strait, Gulf-Magdalen and Anticosti. • Notices to Fish Harvester (when available).
	Table Mountain Pine Tree Mount Moriah	Ch28B	
	Bonne Bay	Ch83B	
Continuous	Pointe Riche	Ch23B	Radiotelephony (French) • Technical marine synopsis, forecasts and wave height forecasts for marine areas 220, 221, 222, and 231. • Weather forecast and wave height forecast for marine areas 215, 217 and 219. • Notices to Shipping from Penguin Island to Cape Norman including Labrador between West Point (Red Bay) and the Québec/Labrador border. • Ice Edge and Conditions for marine areas: Northeast Gulf, Gulf Port au Port, Southwest Coast, Cabot Strait, Gulf-Magdalen and Anticosti. • Notices to Fish Harvesters (when available).
	Bonne Bay	Ch21B	
	Pine Tree Mount Moriah	Ch83B	

2.1.7 *Prescott, Ontario*

MMSI: 003160029 Call Sign: VBR

Hours: H24
Services in English and in French

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Service call Prescott Coast Guard Radio.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Prescott MCTS Centre
P.O. Box 1000
401 King Street West
Prescott ON K0E 1T0

Telephone: 613-925-4471 MCTS Operations
613-925-0618 Officer-in-Charge
613-925-0666 NOTSHIP Desk / NAVAREA XVII and XVIII

Facsimile: 613-925-4519

Email: Safety.Prescott@innav.gc.ca Prescott MCTS
navarea17.18@innav.gc.ca Navarea XVII and XVIII
CA.XCA-NotshipDesk@dfo-mpo.gc.ca Notship Desk
iqanordreg@innav.gc.ca NORDREG (late December to mid-May)

Prescott MCTS Centre VHF Direction Finding Advisory Service:

A VHF/DF advisory service is available for vessels in difficulty in western Lake Ontario within range of the receiver sites located at Brougham, Cobourg and Trafalgar. Information concerning position, bearing and distance may be provided for use at the discretion of the user.

Table 2-13 - Prescott MCTS/VBR - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Cornwall 45°01'06"N 074°43'47"W	Ch16 Ch70 Ch85			Operational March 15 to December 31.
Cardinal 44°47'17"N 075°25'19"W	Ch16 Ch26 Ch27 Ch70			Operational March 15 to December 31.
Gananoque 44°23'59"N 075°58'23"W	Ch16 Ch85			Operational March 15 to December 31.

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Kingston 44°15'46"N 076°40'39"W	Ch16 Ch24 Ch26 Ch70			
Cobourg 44°03'59"N 078°12'41"W	Ch16 Ch27 Ch70 Ch85			VHF Direction Finding service is available.
Trafalgar 43°29'41"N 079°43'48"W	Ch16 Ch24 Ch70			VHF Direction Finding service is available.
Fonthill 43°03'11"N 079°18'42"W	Ch16 Ch26 Ch27 Ch70			
Orillia 44°34'40"N 079°17'40"W	Ch16 Ch26 Ch70			

Table 2-14 - Prescott MCTS/VBR - Ship/Shore Communications Serving Lake Winnipeg

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Beaver Creek 51°23'21"N 096°54'25"W	Ch16 Ch26			Operational May 15 to October 31.
Fraserwood 50°34'47"N 097°13'56"W	Ch16 Ch19			Operational May 15 to October 31.
Jackhead 51°53'20"N 097°19'01"W	Ch16 Ch26			Operational May 15 to October 31.
Long Point 52°55'33"N 098°58'10"W	Ch16 Ch26			Operational May 15 to October 31.

Table 2-15 - Prescott MCTS/VBR - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
01:10	Ferndale	518F1B	NAVTEX: (H) • Notices to Shipping. • Ice (during ice season).
05:10	Ferndale	518F1B	NAVTEX: (H) • Weather.
09:10	Ferndale	518F1B	NAVTEX: (H) • Weather.
13:10	Ferndale	518F1B	NAVTEX: (H) • Notices to Shipping • Ice (during ice season).

Time UTC	Site	Frequency or Channel	Contents
17:10	Ferndale	518F1B	NAVTEX: (H) • Weather.
21:10	Ferndale	518F1B	NAVTEX: (H) • Weather.
Continuous CMB East	Cardinal	Ch21B	Radiotelephony (English) • Localized weather warnings/watches, marine weather statements, technical marine synopsis, regular marine forecasts, wave height forecast and extended marine forecasts for St. Lawrence River from Kingston to Montréal and Lake Ontario (Areas: 309, 401 and 402). • Notices to Shipping in St. Lawrence River west of Melocheville, Lake Ontario east of 77 40W, Trent River and portions of the Rideau Canal receiving coverage from the Kingston facilities. • Water level readings from Montréal Harbour, and Lake Ontario. • Ice forecast for Lake Ontario.
	Cornwall Kingston	Ch83B	
Continuous CMB West	Cobourg	Ch21B	Radiotelephony (English) • Localized weather warnings/watches, marine weather statements, technical marine synopsis, regular marine forecasts, wave height forecast and extended marine forecasts for Lake Ontario and Lake Erie (Areas 402 and 403). • Notices to Shipping in Lake Ontario west of 077 00W and Lake Erie east of 080 20W and portions of the Trent-Severn waterway system receiving coverage from the Cobourg facilities. • Water level readings for Toronto Harbour, Lake Ontario and Lake Erie. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Ice forecast for Lake Ontario and Lake Erie.
	Fonthill	Ch83B	
Continuous	Cardinal	Ch28B	Radiotelephony (French) • Localized weather warnings/watches, marine weather statements, technical marine synopsis, regular marine forecasts and extended marine forecasts for St. Lawrence River from Kingston to Montréal (Areas: 309 and 401). • Notices to Shipping in the St. Lawrence River west of Melocheville. • Water level readings for Montréal Harbour. • Operational March 15 to December 31.
	Cornwall Kingston	Ch23B	
Continuous	Orillia	Ch21B	Radiotelephony (English) • Localized weather warnings/watches, marine weather statements, technical marine synopsis, regular marine forecasts, wave height forecast and extended marine forecasts for Georgian Bay (Area 406). • Recreational Boating Forecast for Lake Simcoe (Area 481). • Water level readings for Lake Huron. • Notices to Shipping for the Trent Severn waterway, and southern Georgian Bay contiguous from the Severn River to 080 00W. • Ice forecast for Georgian Bay.

MAFOR Code available upon request.

Table 2-16 - Prescott MCTS/VBR - Lake Winnipeg Broadcasts

Time UTC	Site	Frequency or Channel	Contents
01:40 08:40 12:40 16:40 21:40	Jackhead Long Point Beaver Creek	Ch26	Radiotelephony • Localized weather warnings/watches, marine weather statements, regular marine forecasts, and extended marine forecasts for Lake Winnipeg. • Notices to Shipping for Lake Winnipeg, Playgreen Lake and Red River north of St. Andrews Lock and Dam.
	Fraserwood	Ch19	

2.1.8 *Prince Rupert, British Columbia*

MMSI: 003160013 Call Sign: VAJ

Hours: H24
Services in English only

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services, call Prince Rupert Coast Guard Radio.

For Vessel Traffic Services, call Prince Rupert Traffic – refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Prince Rupert MCTS Centre
Bag 4444
Prince Rupert BC V8J 4K2

Telephone:	250-627-3070 MCTS Operations/Supervisor 250-627-3077 Officer-in-Charge 250-624-9009 Continuous Marine Broadcast (CMB North) 250-726-3415 Continuous Marine Broadcast (CMB South) 250-627-3081 Marine Emergency / Safety - North 250-627-3082 Marine Emergency / Safety - South
Facsimile:	250-624-9075 MCTS Operations
Email:	supervisor.rupert@innav.gc.ca
Website:	http://www.ccg-gcc.gc.ca/Marine-Communications/Home

VHF Direction Finding Advisory Service:

A VHF/DF advisory service is available to vessels within range of the receiver sites located at Mount Hays, Dundas Island, Cumshewa, Van Inlet, Naden Harbour, Mount Gil, Klemtu and Calvert Island. Information concerning position, bearing and distance information may be provided for use at the discretion of the user.

Table 2-17 - Prince Rupert MCTS/VAJ - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Digby Island 54°17'51"N 130°25'06"W		2182J3E 2054J3E 4125J3E	2182 2054 4125	
Hunter Point 53°15'31"N 132°42'53"W		2182J3E 2054J3E	2182 2054	
Barry Inlet 52°34'30"N 131°45'13"W	Ch11 Ch16 Ch26 Ch83A			

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Cumshewa 53°09'33"N 131°59'47"W	Ch11 Ch16 Ch70 Ch83A Ch84			VHF Direction Finding service is available.
Dundas Island 54°31'16"N 130°54'55"W	Ch16 Ch70 Ch71 Ch83A Ch84			VHF Direction Finding service is available.
Kitimat 54°03'20"N 128°37'51"W	Ch11 Ch16 Ch83A			
Klemtu 52°34'45"N 128°33'45"W	Ch11 Ch16 Ch70 Ch83A Ch84			VHF Direction Finding service is available.
Rose Inlet 52°13'18"N 131°12'54"W	Ch11 Ch16 Ch26 Ch70 Ch83A			
Mount Dent 55°12'58"N 129°59'18"W	Ch16 Ch84			CMB site is solar powered and is available during winter months upon request.
Mount Gil 53°15'46"N 129°11'42"W	Ch11 Ch16 Ch26 Ch70 Ch83A			VHF Direction Finding service is available.
Mount Hays 54°17'12"N 130°18'49"W	Ch11 Ch16 Ch70 Ch71 Ch83A Ch84			VHF Direction Finding service is available.
Naden Harbour 53°57'18"N 132°56'30"W	Ch11 Ch16 Ch70 Ch71 Ch83A Ch84			VHF Direction Finding service is available.
Van Inlet 53°15'08"N 132°32'31"W	Ch11 Ch16 Ch26 Ch83A			VHF Direction Finding service is available.

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Calvert Island 51°35'21"N 128°00'43"W	Ch11 Ch16 Ch70 Ch83A Ch84			VHF Direction Finding service is available.
Amphitrite Point 48°55'31"N 125°32'25"W		2182J3E 2054J3E 4125J3E		
Eliza Dome 49°52'24"N 127°07'13"W	Ch16 Ch70 Ch74 Ch83A Ch84			
Mount Ozzard 48°57'34"N 125°29'30"W	Ch16 Ch70 Ch74 Ch83A Ch84			
Port Alberni 49°13'07"N 124°48'43"W	Ch16 Ch26 Ch74 Ch83A			
Estevan Point 49°22'59"N 126°32'00"W	Ch16 Ch83A			
			2182 2054 4125	
Nootka 49°35'36"N 126°36'52"W	Ch16 Ch26 Ch74 Ch83A			
Esperanza 49°50'32"N 126°48'22"W	Ch16 Ch83A			
Holberg 50°38'24"N 128°07'34"W	Ch16 Ch26 Ch70 Ch74 Ch83A			

Table 2-18 - Prince Rupert MCTS/VAJ - Broadcasts

Time PST	Site	Frequency or Channel	Contents
00:30	Digby Island	518F1B	NAVTEX: (D) • Marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby.
01:10	Amphitrite Point	518F1B	NAVTEX: (H) • Offshore Notices to Shipping.
04:30	Digby Island	518F1B	NAVTEX: (D) • Marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby.
04:50	Amphitrite Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast 1, 5, 6, 7. • Wave height forecast areas 1, 5, 6, 7. • Extended marine forecast areas 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood. • All Notices to Shipping.
05:10	Amphitrite Point	518F1B	NAVTEX: (H) • Marine forecast 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood.
05:15	Digby Island Hunter Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast areas 2, 3, 4. • Wave height forecast areas 2, 3, 4. • Extended marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby. • All Notices to Shipping.
08:30	Digby Island	518F1B	NAVTEX: (D) • Offshore Notices to Shipping.
09:10	Amphitrite Point	518F1B	NAVTEX: (H) • Marine forecast areas 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood.
10:50	Amphitrite Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast areas 1, 5, 6, 7. • Wave height forecast areas 1, 5, 6, 7. • Extended marine forecast areas 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood. • All Notices to Shipping.

Time PST	Site	Frequency or Channel	Contents
11:15	Digby Island Hunter Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast areas 2, 3, 4. • Wave height forecast areas 2, 3, 4. • Extended marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby. • All Notices to Shipping.
12:30	Digby Island	518F1B	NAVTEX: (D) • Marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby.
13:10	Amphitrite Point	518F1B	NAVTEX: (H) • Offshore Notices to Shipping.
16:30	Digby Island	518F1B	NAVTEX: (D) • Marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby.
16:50	Amphitrite Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast areas 1, 5, 6, 7. • Wave height forecast areas 1, 5, 6, 7. • Extended marine forecast areas 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood. • All Notices to Shipping.
17:10	Amphitrite Point	518F1B	NAVTEX: (H) • Marine forecast areas 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood.
17:15	Digby Island Hunter Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast areas 2, 3, 4. • Wave height forecast areas 2, 3, 4. • Extended marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby. • All Notices to Shipping.
20:30	Digby Island	518F1B	NAVTEX: (D) • Offshore Notices to Shipping.
21:10	Amphitrite Point	518F1B	NAVTEX: (H) • Marine forecast areas 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood.

Time PST	Site	Frequency or Channel	Contents
22:50	Amphitrite Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast areas 1, 5, 6, 7. • Wave height forecast areas 1, 5, 6, 7. • Extended marine forecast areas 1, 5, 6, 7. • Ocean Buoy Reports: South Nomad, South Brooks, La Perouse Bank, East Dellwood. • All Notices to Shipping.
23:15	Digby Island Hunter Point	2054J3E	Radiotelephony • Technical marine synopsis and marine forecast areas 2, 3, 4. • Wave height forecast areas 2, 3, 4. • Extended marine forecast areas 2, 3, 4. • Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, West Moresby, South Moresby. • All Notices to Shipping.

Time PST	Site	Frequency or Channel	Contents
Continuous	Mount Hays Mount Dent Rose Inlet Kitimat	Ch21B	Radiotelephony • Technical marine synopsis and marine forecast areas 2, 3, 4, 5, 13, 14, 15, 16, 17. • Wave height forecast areas 2, 3, 4, 5, 14, 15, 16. • Extended marine forecast areas 2, 3, 4, 5, 13, 14, 15, 16, 17. Automated Weather Reports: Grey Islet, Lucy Island, Holland Rock, Bonilla Island, Rose Spit, Kindakun Rock, Prince Rupert, Langara Island, Sandspit, Cumshewa Island, Cape St. James, Cathedral Point, Sartine Island, Herbert Island. Ocean Buoy Reports: North Nomad, Middle Nomad, West Dixon Entrance, Central Dixon Entrance, North Hecate Strait, South Hecate Strait, West Moresby, South Moresby, Nanakwa Shoal, West Sea Otter, East Dellwood. Lighthouse Weather Reports: Green Island, Triple Island, Bonilla Island, Langara Island, Boat Bluff, McInnes Island, Ivory Island, Dryat Point, Addenbroke Island, Egg Island, Cape Scott, Pine Island. • All Notices to Shipping. • Notices to Fish Harvesters – Weekly Shellfish Updates (every Tuesday at 11:15 PST).
	Klemtu Van Inlet	WX1	
	Barry Inlet Dundas Island Mount Gil Calvert Island	WX2	
	Cumshewa Naden Harbour	WX3	
Continuous	Mount Ozzard Esperanza Holberg	Ch21B	Radiotelephony • Technical marine synopsis and marine forecast areas 1, 5, 6, 7, 8, 13, 14. • Wave height forecast areas 1, 5, 6, 7, 14. • Extended marine forecast areas 1, 5, 6, 7, 8, 13, 14. Automated Weather Reports: Cape St. James, Herbert Island, Sartine Island, Solander Island, Sheringham Point, Race Rocks, Discovery Island. Ocean Buoy Reports: West Sea Otter, East Dellwood, South Brooks, La Perouse, South Moresby. Local and Lighthouse Weather Reports: Trial Island, Carmanah Point, Pachena Point, Cape Beale, Lennard Island, Estevan Point, Nootka, Quatsino, Cape Scott, Pine Island, Egg Island, McInnes Island. • All Notices to Shipping. • Notices to Fish Harvesters – Weekly Shellfish Updates (every Tuesday at 13:15 PST).
	Eliza Dome	WX1	
	Port Alberni Nootka	WX2	
	Estevan Point	WX3	

2.1.9 *Québec, Québec*

MMSI: 003160027 Call Sign: VCC

Hours: H24
Services in English and in French.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services call Québec Coast Guard Radio.

For Vessel Traffic Services call Québec Traffic - refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Québec MCTS Centre
101 Champlain Boulevard
Québec QC G1K 7Y7

Telephone: 418-648-4427 MCTS Operations
418-648-7459 Officer-in-Charge

Facsimile: 418-648-7244

Email: QUERAA1@INNAV.GC.CA

Québec MCTS Centre VHF Direction Finding Advisory Service:

A VHF/DF advisory service is available to vessels in difficulty within range of the receiver sites located at Montmagny and Rivière-du-Loup. Information concerning position, bearing and distance may be provided for use at the discretion of the user.

Table 2-19 - Québec MCTS/VCC - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Lauzon 46°48'45"N 071°09'33"W	Ch12 Ch16 Ch26 Ch70			
Trois-Rivières 46°23'50"N 072°27'17"W	Ch13 Ch16 Ch24 Ch70			
Mont Bélair 46°49'22"N 071°29'45"W	Ch13 Ch16 Ch85 Ch70			

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Montmagny 46°55'42"N 070°30'45"W	Ch12 Ch16 Ch24 Ch70			VHF Direction Finding service is available.
Rivière-du-Loup 47°45'35"N 069°36'19"W	Ch12 Ch16 Ch70 Ch85			
Sorel 46°02'45"N 073°06'52"W	Ch13 Ch16 Ch26 Ch70			
Île-Charron 45°35'03"N 073°29'40"W	Ch10 Ch16			
Mont Saint-Bruno 45°33'25"N 073°19'33"W	Ch10 Ch16 Ch24 Ch70 Ch85			
Mont Rigaud 45°27'00"N 074°17'48"W	Ch16 Ch70 Ch84			Operational from mid-March until the end of December.
L'Acadie 45°19'17"N 073°18'34"W	Ch16 Ch24 Ch70			Operational from May 1 to October 31.

Table 2-20 - Québec MCTS/VCC - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
Continuous	Lauzon Rivière-du-Loup	Ch21B	Radiotelephony • Technical marine synopsis and forecasts for areas 303*, 305, 306, 307, 308, 309 and 314. • Notices to Shipping for the region: from a line Les Escoumins - Trois-Pistoles to Cornwall (Ontario), including the Ottawa River, Lac des Deux-Montagnes between buoy H331 (Papineauville) and Ste-Anne de Bellevue, Lake St-François, Lake St-Louis, Rivière des Milles-Îles, Rivière des Prairies and Rivière Richelieu up to U.S. boundaries including Missisquoi Bay. • Water level for Montréal, Sorel, Trois-Rivières, Pointe Claire*, Ste Anne de Bellevue*. • Ice information. • Seaway message.
	Montmagny Trois-Rivières	Ch83B	

Time UTC	Site	Frequency or Channel	Contents
Continuous	Mont St-Bruno	Ch21B	Radiotelephony • Technical marine synopsis and forecasts for areas 303*, 305, 306, 307, 308, 309 and 314. • Notices to Shipping for the region: from a line Les Escoumins - Trois-Pistoles to Cornwall (Ontario), including the Ottawa River, Lac des Deux-Montagnes between buoy H331 (Papineauville) and Ste-Anne de Bellevue, Lake St-François, Lake St-Louis, Rivière des Milles-Îles, Rivière des Prairies and Rivière Richelieu up to U.S. boundaries including Missisquoi Bay. • Water level for Montréal, Sorel, Trois-Rivières, Pointe Claire*, Ste Anne de Bellevue*. • Ice information. • Seaway message.
	Mont Rigaud	Ch25B	
Continuous	Sorel	Ch25B	Radiotelephony • Technical marine synopsis and forecasts for areas 303*, 305, 306, 307, 308, 309 and 314. • Notices to Shipping for the region: from a line Les Escoumins - Trois-Pistoles to Cornwall (Ontario), including the Ottawa River, Lac des Deux-Montagnes between buoy H331 (Papineauville) and Ste-Anne de Bellevue, Lake St-François, Lake St-Louis, Rivière des Milles-Îles, Rivière des Prairies and Rivière Richelieu up to U.S. boundaries including Missisquoi Bay. • Water level for Montréal, Sorel, Trois-Rivières, Pointe Claire*, Ste Anne de Bellevue*. • Ice information. • Seaway message.
Continuous	L'Acadie	Ch83B	Radiotelephony • Technical marine synopsis and forecasts for areas 303*, 305, 306, 307, 308, 309 and 314. • Notices to Shipping for the region: from a line Les Escoumins - Trois-Pistoles to Cornwall (Ontario), including the Ottawa River, Lac des Deux-Montagnes between buoy H331 (Papineauville) and Ste-Anne de Bellevue, Lake St-François, Lake St-Louis, Rivière des Milles-Îles, Rivière des Prairies and Rivière Richelieu up to U.S. boundaries including Missisquoi Bay. • Water level for Montréal, Sorel, Trois-Rivières, Pointe Claire*, Ste Anne de Bellevue*. • Ice information. • Seaway message.

MAFOR available upon request
**From May 1st to October 31st.*

2.1.10 *Sarnia, Ontario*

MMSI: 003160030 Call Sign: VBE

Hours: H24
Services in English only.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services call Sarnia Coast Guard Radio.

For Vessel Traffic Services call Sarnia Traffic – refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge - MCTS Operations
Sarnia MCTS Centre
105 Christina St. South
Sarnia ON N7T 7W1

Telephone: 519-337-6221 MCTS Operations
519-337-6572 Officer-in-Charge

Facsimile: 519-336-0229

Email: Safety.Sarnia@innav.gc.ca

Sarnia MCTS Centre VHF Direction Finding Advisory Service:

A VHF/DF advisory service is available for vessels in difficulty in Georgian Bay within range of receiver sites located at Tobermory, Cape Croker, Banks and Pointe au Baril. Position and/or bearing and distance information may be provided for use at the discretion of the recipient.

Table 2-21 - Sarnia MCTS/VBE - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Camlachie 43°01'41"N 082°11'09"W	Ch11 Ch16 Ch24 Ch70 Ch85			
Kincardine 44°07'01"N 081°41'24"W	Ch11 Ch16 Ch27 Ch70 Ch85			
Leamington 42°04'10"N 082°39'58"W	Ch12 Ch16 Ch27 Ch70 Ch85			

Sites located at	**Channels**	**Frequencies**		**Remarks**
		Transmit	**Receive**	
Port Burwell 42°34'58"N 080°36'13"W	Ch12 Ch16 Ch24 Ch70 Ch85			
Grande Pointe 42°23'26"N 082°24'17"W	Ch11 Ch12 Ch16 Ch70 Ch85			
Rondeau 42°25'22"N 081°50'40"W	Ch12 Ch16 Ch70 Ch85			
Thunder Bay 48°26'02"N 089°18'06"W	Ch16 Ch70 Ch85			
Horn 48°49'06"N 087°21'12"W	Ch16 Ch24 Ch70			
Bald Head 47°39'37"N 084°47'39"W	Ch16 Ch27 Ch70			
Sault Ste. Marie (Gros Cap) 46°32'16"N 084°34'54"W	Ch11 Ch16 Ch24 Ch70			
Silver Water (Manitoulin Island) 45°54'03"N 082°54'50"W	Ch11 Ch16 Ch27 Ch70			
Wiarton 44°44'50"N 081°06'44"W	Ch16 Ch26 Ch70			
Meaford 44°30'56"N 080°34'00"W	Ch16 Ch70 Ch85			
Tobermory 45°09'36"N 081°29'45"W	Ch16 Ch26 Ch70			VHF Direction Finding service is available.
Killarney 45°58'05"N 081°29'22"W	Ch16 Ch24 Ch70			
Pointe au Baril 45°33'53"N 080°19'02"W	Ch16 Ch26 Ch70			VHF Direction Finding service is available.

Table 2-22 - Sarnia MCTS/VBE - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
02:30	Pass Lake	518F1B	NAVTEX: (P) • Weather.
06:30	Pass Lake	518F1B	NAVTEX: (P) • Notices to Shipping. • Ice (during ice season).
10:30	Pass Lake	518F1B	NAVTEX: (P) • Weather.
14:30	Pass Lake	518F1B	NAVTEX: (P) • Weather.
18:30	Pass Lake	518F1B	NAVTEX: (P) • Notices to Shipping. • Ice (during ice season).
22:30	Pass Lake	518F1B	NAVTEX: (P) • Weather
Continuous (CMB West)	Horn Sault Ste. Marie	Ch21B	Radiotelephony • Weather warning/watches, marine weather statements, technical, Marine synopsis, regular marine forecasts, extended marine forecast and wave height forecast and for Lakes Superior, Huron, St Clair and Erie and Georgian Bay. • Notices for Shipping for Lake Superior and the St. Mary's River. • Water levels for Lakes Superior and Huron. • Ice forecast for Lakes Superior and Huron.
	Thunder Bay Bald Head	Ch83B	
Continuous (CMB East)	Tobermory Killarney Pointe au Baril	Ch21B	Radiotelephony • Weather warnings/watches, marine weather statements, technical marine synopsis, regular marine forecasts, extended marine forecast and wave height forecast and for Lakes Superior, Huron, St Clair and Erie, and Georgian Bay. • Recreational boating forecast for the North Channel. • Notices to Shipping for Lake Huron north of latitude 44 00N, Georgian Bay (including Port Severn Lock), the North Channel and the St. Mary's River. • Water levels for Lakes Superior and Huron. • Ice forecast for Lakes Superior and Huron.
	Silver Water Meaford	Ch83B	

Time UTC	Site	Frequency or Channel	Contents
Continuous (CMB North)	Camlachie	Ch21B	Radiotelephony • Weather warnings/watches, marine weather statements, technical marine synopsis, regular marine forecasts, extended marine forecast and wave height forecast and for Lakes Superior, Huron, St Clair and Erie, and Georgian Bay. • Notices to Shipping for Lake Huron South of 45 10N, St. Clair River, Lake St. Clair and Detroit River. • Water levels for Lake Huron, Lake St. Clair and Lake Erie. • Ice forecast for Lake Huron, Lake St. Clair and Lake Erie.
	Kincardine	Ch83B	
Continuous (CMB South)	Port Burwell	Ch21B	Radiotelephony • Weather warnings/watches, marine weather statements, technical marine synopsis, regular marine forecasts, extended marine forecast and wave height forecast and for Lakes Superior, Huron, St Clair and Erie, and Georgian Bay. • Notices to Shipping in St. Clair River, Lake St. Clair, Detroit River and Lake Erie West of 79 40W. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Water levels for Lake Huron, Lake St. Clair and Lake Erie. • Ice forecast for Lake Huron, Lake St. Clair and Lake Erie.
	Leamington	Ch83B	

MAFOR Code available upon request.

2.1.11 *Sydney, Nova Scotia*

MMSI: 003160017 Call Sign: VCO

Hours: H24
Radio services in English and in French.

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services call Sydney Coast Guard Radio.

For Vessel Traffic Services call Canso Traffic – refer to Part 3.

For Vessel Traffic Services call Northumberland Traffic – refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Sydney MCTS Centre
1190 Westmount Road
Sydney NS B1R 2J6

Telephone:	902-564-7751 MCTS Operations 1-800-686-8676 MCTS Operations Toll Free 902-564-2446 Commercial Public Correspondence Service 902-564-7752 Officer-in-Charge
Facsimile:	902-564-7662
Email:	Safety.Sydney@innav.gc.ca

Sydney MCTS Centre VHF/DF Advisory Service:

A VHF/DF Advisory Service is available to vessels in difficulty within range of the receiver sites located at Port Caledonia, Cape North, Montague, North Cape and Cape Egmont. Information concerning position, bearing and distance may be provided for use at the discretion of the user.

Table 2-23 - Sydney MCTS/VCO - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Port Caledonia 46°11'14"N 059°53'59"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
		2182J3E 2530J3E 2582J3E		

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Cape North 47°00'38"N 060°25'41"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Kilkenny Lake 46°13'29"N 060°10'06"W	Ch16 Ch24 Ch26 Ch70		2182 2815 2206	Ch24, Ch26, 2815 and 2206: Facilities are available for connecting ships directly to the commercial telephone system on shore.
St. Columba 45°59'17"N 060°51'36"W	Ch16 Ch24 Ch26 Ch70			Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Cheticamp (NAD 27) 46°34'39"N 060°59'10"W	Ch16 Ch26 Ch70			Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Montague, PEI 46°11'40"N 062°39'35"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Cape Egmont, PEI 46°24'08"N 064°08'02"W	Ch12 Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Pointe Escuminac, N.B. 47°04'25"N 064°47'53"W	Ch16 Ch24 Ch26 Ch70			Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
North Cape, P.E.I. 47°03'27"N 063°59'55"W	Ch16 Ch24 Ch26 Ch70			VHF Direction Finding service is available. Ch24 and Ch26: Facilities are available for connecting ships directly to the commercial telephone system on shore.
Eddy Point 45°30'52"N 061°15'15"W	Ch06 Ch11 Ch14			

Table 2-24 - Sydney MCTS/VCO - Broadcasts

Time UTC	Site	Frequency or Channel	Contents
00:40	Port Caledonia	2749J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 209, 213, 214, 215, 216, 217, 218, 231 and 232. • Wave height forecast for marine areas 209, 213, 214, 215 and 217. • Notices to Shipping in areas Cape Breton Shore (covering Cabot Strait to Banquereau Bank), Gulf of St. Lawrence, Newfoundland South Coast, P.E.I. and Miramichi Bay. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel.
01:30	Port Caledonia	490F1B	NAVTEX: (J) French • Weather (Ice only in winter).
02:40	Port Caledonia	518F1B	NAVTEX: (Q) English • Notices to Shipping.
05:30	Port Caledonia	490F1B	NAVTEX: (J) French • Weather.
06:40	Port Caledonia	518F1B	NAVTEX: (Q) English • Marine forecast.
07:40	Port Caledonia	2749J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 209, 213, 214, 215, 216, 217, 218, 231 and 232. • Wave height forecast for marine areas 209, 213, 214, 215 and 217. • Notices to Fish Harvesters (when available).
09:30	Port Caledonia	490F1B	NAVTEX: (J) French • Weather.
10:40	Port Caledonia	518F1B	NAVTEX: (Q) English • Weather.
11:21	Sambro	6915.10J3C	Radiofacsimile: Ice Charts • Ice Analysis Gulf of St. Lawrence.
11:42	Sambro	6915.10J3C	Radiofacsimile: Ice Charts • Ice Analysis East or Southeast Newfoundland waters.
13:30	Port Caledonia	490F1B	NAVTEX: (J) French • Notices to Shipping.
14:40	Port Caledonia	2749J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 209, 213, 214, 215, 216, 217, 218, 231 and 232. • Wave height forecast for marine areas 209, 213, 214, 215 and 217. • Notices to Shipping in areas Cape Breton Shore (covering Cabot Strait to Banquereau Bank), Gulf of St. Lawrence, Newfoundland South Coast, P.E.I. and Miramichi Bay. • Notice to Shipping revising the position of every reported offshore exploration and exploitation vessel.

Time UTC	Site	Frequency or Channel	Contents
14:40	Port Caledonia	518F1B	NAVTEX: (Q) English • Notices to Shipping.
17:30	Port Caledonia	490F1B	NAVTEX: (J) French • Weather.
17:41	Sambro	6915.10J3C	Radiofacsimile: Ice Charts • Ice Analysis Iceberg limit.
18:40	Port Caledonia	518F1B	NAVTEX: (Q) English • Weather
20:10	Port Caledonia	2749J3E	Radiotelephony • Technical marine synopsis and forecasts for marine areas 209, 213, 214, 215, 216, 217, 218, 231 and 232. • Wave height forecast for marine areas 209, 213, 214, 215 and 217. • Notices to Fish Harvesters (when available).
21:30	Port Caledonia	490F1B	NAVTEX: (J) French • Notices to Shipping.
22:00	Sambro	4416J3C	Radiofacsimile: Ice Charts • Ice Analysis Gulf of St. Lawrence.
22:40	Port Caledonia	518F1B	NAVTEX: (Q) English • Weather (Ice only in winter).
23:31	Sambro	4416J3C	Radiofacsimile: Ice Charts • Ice Analysis East or Southeast Newfoundland waters.
Continuous	Port Caledonia Point Escuminac Montague	Ch21B	Radiotelephony • Technical marine synopsis and forecasts for marine areas 209, 213, 214, 215, 216, 217, 218, 231 and 232. • Wave height forecast for marine areas 209, 213, 214, 215 and 217. • Notices to Shipping in areas Cape Breton Shore (covering Cabot Strait to Banquereau Bank), Gulf of St. Lawrence, Newfoundland South Coast, P.E.I. and Miramichi Bay. • Notices to Shipping revising the position of every reported offshore exploration and exploitation vessel. • Notices to Fish Harvesters (when available). • Ice forecasts for P.E.I. fish harvesters.
	Cape North Cape Egmont	Ch83B	

2.1.12 *Victoria, British Columbia*

MMSI: 003160011 Call Sign: VAK

Hours: H24
Services in English only

All communications with Canadian Coast Guard Marine Communications and Traffic Services Centres are recorded.

For Radio Services, call Victoria Coast Guard Radio.

For Vessel Traffic Services, call Victoria Traffic – refer to Part 3.

Coordinates

Mailing Address:

Fisheries and Oceans Canada
Canadian Coast Guard
Officer-in-Charge – MCTS Operations
Victoria MCTS Centre
Institute of Ocean Sciences
9860 West Saanich Road
P.O. Box 6000
Sidney BC V8L 4B2

Telephone:	250-363-6611 MCTS Operations
	1-800-661-9202 Toll Free MCTS Operations (within B.C. only)
	250-363-6818 Officer-in-Charge
	250-363-6836 Administration
	250-363-6333 Shift Supervisor
	250-363-6880 Continuous Marine Broadcast (CMB) – Mount Helmcken
	250-363-6492 Continuous Broadcast (CMB) – Bowen Island/Mount Parke
	604-666-3655 Continuous Broadcast (CMB) – Bowen Island/Mount Parke
	250-339-0748 Continuous Marine Broadcast (CMB) - Mid-Island Area
	250-974-5305 Continuous Marine Broadcast (CMB) – North Island Area
Facsimile:	250-363-6556
Email:	supervisor.victoria@innav.gc.ca
Website:	http://www.ccg-gcc.gc.ca/Marine-Communications/Home

VHF Direction Finding Advisory Service:

A VHF/DF advisory service is available to vessels within range of the Bowen Island, Mount Parke, Mount Newton, Mount Helmcken receiver sites. Information concerning position, bearing and distance information may be provided for use at the discretion of the user.

Table 2-25 - Victoria MCTS/VAK - Ship/Shore Communications

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Annacis Island 49°11'35"N 122°55'09"W	Ch16 Ch26 Ch70 Ch74 Ch83A			
Bowen Island 49°20'41"N 123°23'13"W	Ch11 Ch12 Ch16 Ch70 Ch83A Ch84			VHF Direction Finding service is available.
Gabriola Island 49°09'11"N 123°50'35"W	Ch11 Ch16 Ch83A			Ch83A is not monitored 24/7.
Mount Parke 48°50'23"N 123°17'41"W	Ch11 Ch16 Ch26 Ch70 Ch74 Ch83A			VHF Direction Finding service is available.
Mount Newton 48°36'48"N 123°26'35"W	Ch11 Ch16 Ch70 Ch83A Ch84			VHF Direction Finding service is available.
Mount Helmcken 48°24'07"N 123°34'17"W	Ch11 Ch16 Ch70 Ch83A Ch84			VHF Direction Finding service is available.
Watts Point (Howe Sound) 49°38'54"N 123°12'36"W	Ch12 Ch16 Ch70 Ch83A			
West Vancouver 49°17'05"N 123°06'44"W	Ch12 Ch16 Ch83A			
Cape Lazo 49°42'24"N 124°51'41"W	Ch16 Ch26 Ch71 Ch83A			
Discovery Mountain 50°19'25"N 125°22'16"W	Ch16 Ch70 Ch71 Ch83A Ch84			

Sites located at	Channels	Frequencies		Remarks
		Transmit	Receive	
Alert Bay 50°35'12"N 126°55'28"W	Ch16 Ch26 Ch71 Ch83A			
Port Hardy 50°41'35"N 127°41'53"W	Ch16 Ch70 Ch71 Ch83A Ch84			
Texada Island 49°41'47"N 124°26'07"W	Ch16 Ch70 Ch71 Ch83A Ch84			

Table 2-26 - Victoria MCTS/VAK - Broadcasts

Time PST	Site	Frequency or Channel	Contents
07:10	Mount Parke	Ch21B	Radiotelephony • All Notices to Shipping. • Notices to Fish Harvesters. • Weekly shellfish update (every Tuesday).
	Watts Point	WX1	
	Bowen Island Mount Helmcken	WX3	
07:20	Texada Island Alert Bay	WX1	Radiotelephony • All Notices to Shipping. • Notices to Fish Harvesters. • Weekly shellfish update (every Tuesday).
	Port Hardy	WX3	
	Discovery Mountain Cape Lazo	Ch21B	
13:10	Mount Parke	Ch21B	Radiotelephony • All Notices to Shipping. • Notices to Fish Harvesters.
	Watts Point	WX1	
	Bowen Island Mount Helmcken	WX3	
13:20	Texada Island Alert Bay	WX1	Radiotelephony • All Notices to Shipping. • Notices to Fish Harvesters.
	Port Hardy	WX3	
	Discovery Mountain Cape Lazo	Ch21B	

Time PST	Site	Frequency or Channel	Contents
20:20	Texada Island Alert Bay	WX1	Radiotelephony • All Notices to Shipping. • Notices to Fish Harvesters.
	Port Hardy	WX3	
	Discovery Mountain Cape Lazo	Ch21B	
21:10	Mount Parke	Ch21B	Radiotelephony • All Notices to Shipping. • Notices to Fish Harvesters.
	Watts Point	WX1	
	Bowen Island Mount Helmcken	WX3	
Continuous Interrupted during live broadcasts	Mount Parke	Ch21B	Radiotelephony • Safety Notices to Shipping only. • Technical marine synopsis and marine forecast areas 8, 9, 10, 11. • Extended marine forecast areas 7, 8, 9, 10, 11. Automated Weather Reports: Sheringham Point, Race Rocks, Victoria/Gonzales Point, Discovery Island, Kelp Reef, Saturna Island, Sandheads, Point Atkinson, Pam Rocks, Entrance Island, Ballenas Island, Sisters Islet. Ocean Buoy Report: Halibut Bank. Lighthouse Weather Reports: Chrome Island, Merry Island, Entrance Island, Trial Island. Local Weather Reports: Tsawwassen. • Fraser River Salmon Fishery Information.
	Watts Point	WX1	
	Bowen Island	WX3	
Continuous Interrupted during live broadcasts	Mount Helmcken	WX3	Radiotelephony • Safety Notices to Shipping only. • Technical marine synopsis and marine forecast areas 7, 8, 9, 10, 11. • Wave height forecast area 7. • Extended marine forecast areas 7, 8, 9, 10, 11. Automated Weather Reports: Sheringham Point, Race Rocks, Victoria/Gonzales Point, Discovery Island, Kelp Reef, Saturna Island, Sandheads. Ocean Buoy Report: La Perouse Bank. Local Lighthouse Weather Reports: Estevan Point, Lennard Island, Amphitrite Point, Cape Beale, Pachena Point, Carmanah Point, Trial Island. Automated Weather Reports for Juan de Fuca Strait: Cape Flattery, "JA" Buoy, Hein Bank, Smith Island, Ogden Point.

Time PST	Site	Frequency or Channel	Contents
Continuous North Island Interrupted during live broadcasts	Alert Bay	WX1	Radiotelephony • Safety Notices to Shipping only. • Technical marine synopsis and marine forecast areas 5, 6, 11, 12, 13, 14. • Wave height forecast areas 5, 6, 14. • Extended marine forecast areas 5, 6, 11, 12, 13, 14. Automated Weather Reports: Fanny Island, Herbert Island, Cape St. James, Sartine Island, Solander Island. Ocean Buoy Reports: South Hecate Strait, South Moresby, East Dellwood, West Sea Otter, South Brooks. Lighthouse Weather Reports: McInnes Island, Addenbroke Island, Egg Island, Pine Island, Scarlett Point, Pulteney Point, Chatham Point, Cape Scott, Quatsino.
	Port Hardy	WX3	
Continuous Mid-Island Interrupted during live broadcasts	Texada Island	WX1	Radiotelephony • Safety Notices to Shipping only. • Technical marine synopsis and marine forecast areas 11, 12, 13. • Extended marine forecast areas 11, 12, 13. Automated Weather Reports: Fanny Island, Grief Point, Sisters Islet, Ballenas Island, Entrance Island. Ocean Buoy Reports: Sentry Shoal, Halibut Bank. Local and Lighthouse Weather Reports: Chatham Point, Cape Mudge, Cape Lazo, Chrome Island, Merry Island, Entrance Island.
	Discovery Mountain Cape Lazo	Ch21B	

2.2 CANAL AND LOCK OPERATIONS

Table 2-27 - Atlantic Coast, Gulf and St. Lawrence River to Montréal, Eastern Arctic

Name Coordinates Call Sign	Class of Service	Channel	Remarks
Canso Lock, N.S. 45°38'04"N 061°24'30"W VAZ3	SC	16 11	Operated by Fisheries and Oceans Canada. Canal traffic only. Continuous during navigation season.

2.3 CANAL, PORT AND LOCK OPERATIONS

Table 2-28 - Great Lakes (includes St. Lawrence River to Montréal)

Name Coordinates Call Sign	Class of Service	Channel	Remarks
Seaway, Beauharnois Melocheville, Que. 45°18'15"N 073°55'42"W VDX20	SC	16 14	Operated by Seaway Management Corporation. Ship traffic control only.
Seaway, Iroquois Iroquois, Ont. 44°49'50"N 075°18'46"W VDX21	SC	16 11	Operated by Seaway Authority. Ship traffic control only.
Seaway, Newcastle Port Hope, Ont. 43°57'38"N 078°16'04"W VDX72	SC	16 11	Operated by Seaway Authority. Ship Reports respecting dangers to navigation as required. Ship traffic control only.
Seaway Newcastle St. Catharines, Ont. 43°13'01"N 079°12'53"W VDX70	SC	16 11	Operated by Seaway Authority. Ship Reports respecting dangers to navigation as required. Ship traffic control only.
Toronto, Ont. 43°38'31"N 079°22'44"W XJF495		16 12 14	All vessels, excepting small craft, entering, leaving or changing berths within the port of Toronto are requested to contact the Toronto Harbour Communications Centre (call sign XJF 495) directly on VHF Ch12 between the hours of 08:00 to 16:00 Monday to Friday. At all times initial calls to the Harbour authority should be made on Ch16. Station operated by the Toronto Harbour Commission for ship traffic control only.
Burlington Canal Bridge, Ont. 43°17'48"N 079°47'42"W XL146	SC	16 12	Operated by Department of Public Works. Ship Traffic control only.
Hamilton, Ont. 43°17'00"N 079°50'00"W XJF496		16 12	All vessels, excepting small craft, entering, leaving or intending to move within the harbour should contact the Hamilton Harbour Master directly on Ch12. Ship traffic control only.

Name Coordinates Call Sign	Class of Service	Channel	Remarks
Seaway Welland St. Catharines, Ont. 43°49'20"N 079°11'45"W VDX22	SC	16 14	Operated by Seaway Authority. Ship traffic control only.
Seaway Long Point Port Colborne, Ont. 42°53'15"N 079°14'57"W VDX68	SC	16 11	Operated by Seaway Authority. Ship traffic control only.
Windsor, Ont. 42°19'00"N 083°04'00"W XJP56		16 12 14	Operated by the Windsor Harbour Commission for ship traffic control only. Vessels should make initial calls directly on Ch14.
Sault Ste. Marie, Ont. Canal Lock 46°30'48"N 084°21'03"W VDX23	SC	16 14	Operated by Parks Canada. This station is not continuously attended to enable it to receive communications from vessels. Vessels intending to enter the Canadian Sault Ste. Marie Canal will be directed to the Canal by arrangement with the lockmaster at the United States St. Mary's Falls Canal, normally by means of visual signals. Ship traffic control only.

2.4 BRIDGE OPERATIONS

Table 2-29 - Pacific Coast

Name Coordinates Call Sign	Class of Service	Channel	Remarks
Johnson Street Bridge Victoria Harbour 48°25'40"N 123°21'52"W VAH20	SC	12	Operated by the City of Victoria, B.C. Ship Traffic control only.
Marpole Railway Bridge, B.C. 49°12'00"N 123°07'31"W VGC248	SC	16 74 06 08	Operated by *Canadian Pacific Railway* Note: In operation from 07:30 to 15:00 local time.
New Westminster Railway Bridge, B.C. 49°12'32"N 122°53'25"W XLZ35	SC	16 11 12 74	Operated by Department of Public Works. Ship traffic control only.
Queensboro Railway Bridge, B.C. 49°11'51"N 122°55'23"W XJJ62	SC	16 74 06 08	Operated by *B.C. Southern Railway*.

Name Coordinates Call Sign	**Class of Service**	**Channel**	**Remarks**
Second Narrows Railway Bridge 49°17'42"N 123°01'27"W CJU52	SC	12	Operated by *Canadian National Railway*. Ship traffic control only.

Note: See current "Sailing Directions" publication for a list of bridges that require radio contact for opening.

Figure 2-1 - VHF Coverage - Great Lakes

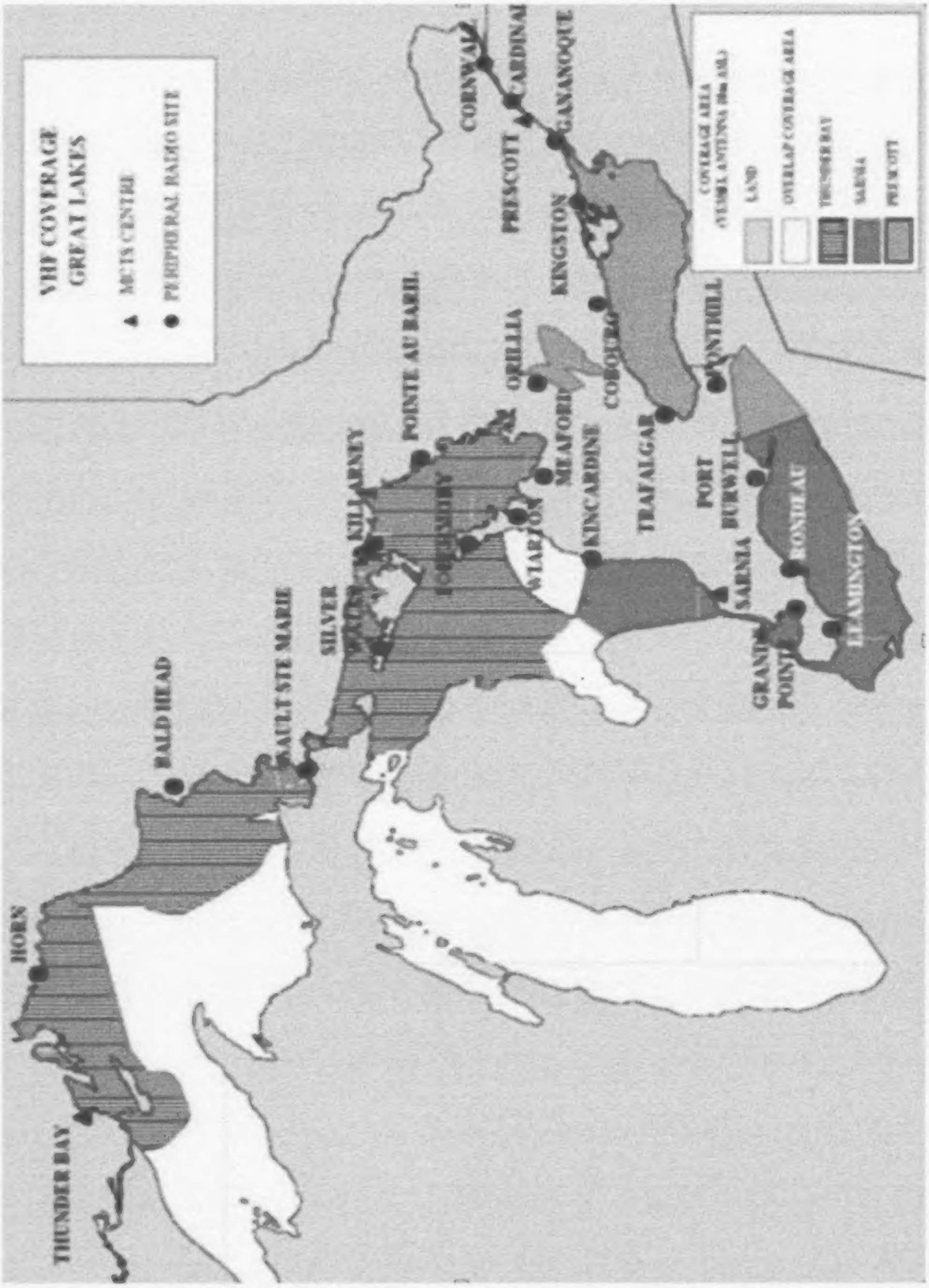

VHF COVERAGE
GREAT LAKES
▲ MCTS CENTRE
● PERIPHERAL RADIO SITE
COVERAGE AREA
(VESSEL ANTENNA 10m ASL)
LAND
OVERLAP COVERAGE AREA
THUNDER BAY
SARNIA
PRESCOTT
THUNDER BAY
HORN
BALD HEAD
SAULT STE MARIE
SILVER WATER
KILLARNEY
TOBERMORY
POINTE AU BARIL
WIARTON
MEAFORD
ORILLIA
KINCARDINE
COBOURG
KINGSTON
PRESCOTT
CARDINAL
GANANOQUE
CORNWALL
TRAFALGAR
FONTHILL
PORT BURWELL
RONDEAU
SARNIA
GRAND POINTE
LEAMINGTON

Figure 2-2 - VHF Coverage - Lake Winnipeg

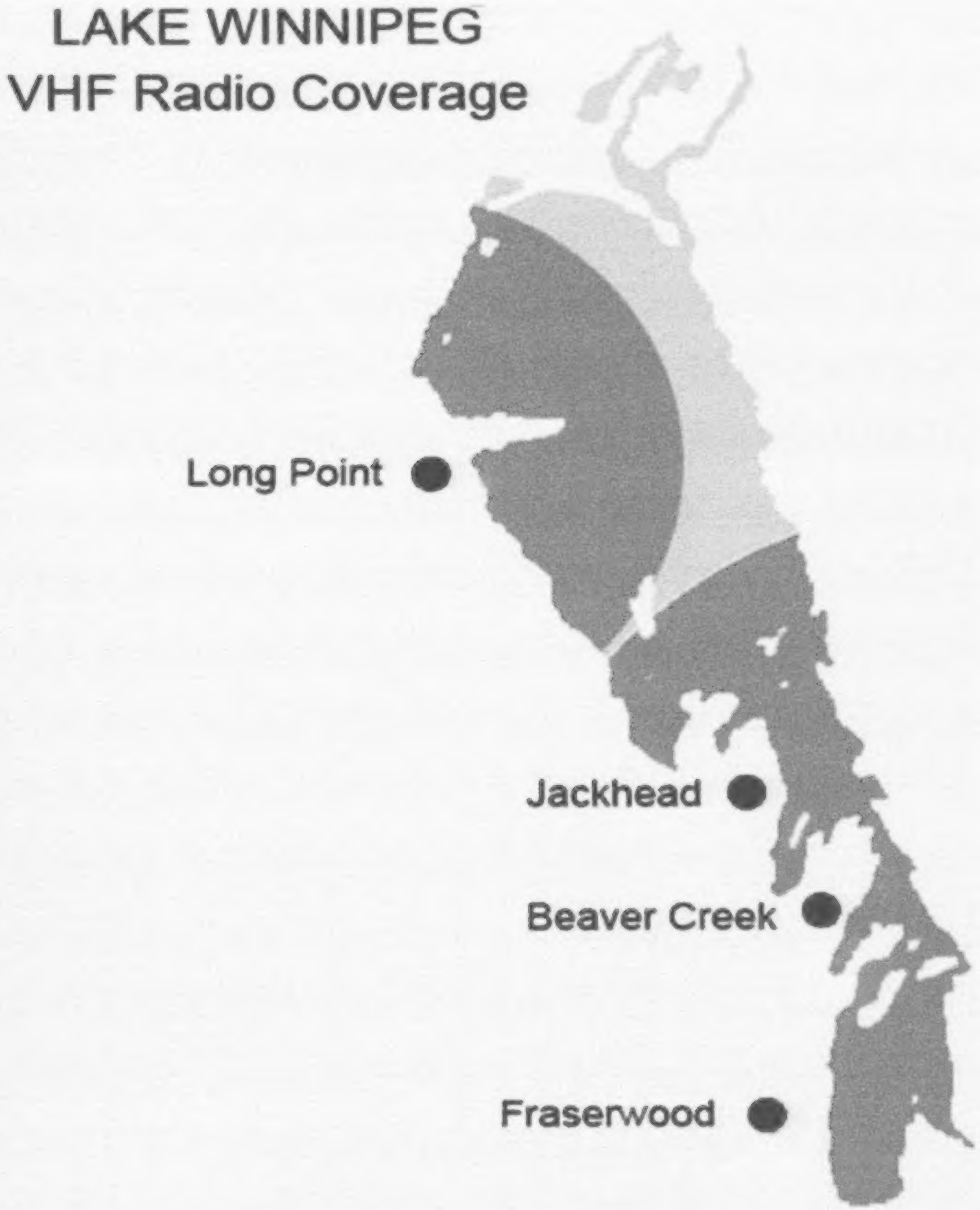

LAKE WINNIPEG
VHF Radio Coverage
Long Point
Jackhead
Beaver Creek
Fraserwood

Figure 2-3 - MCTS Network - Atlantic Region – Newfoundland and Labrador

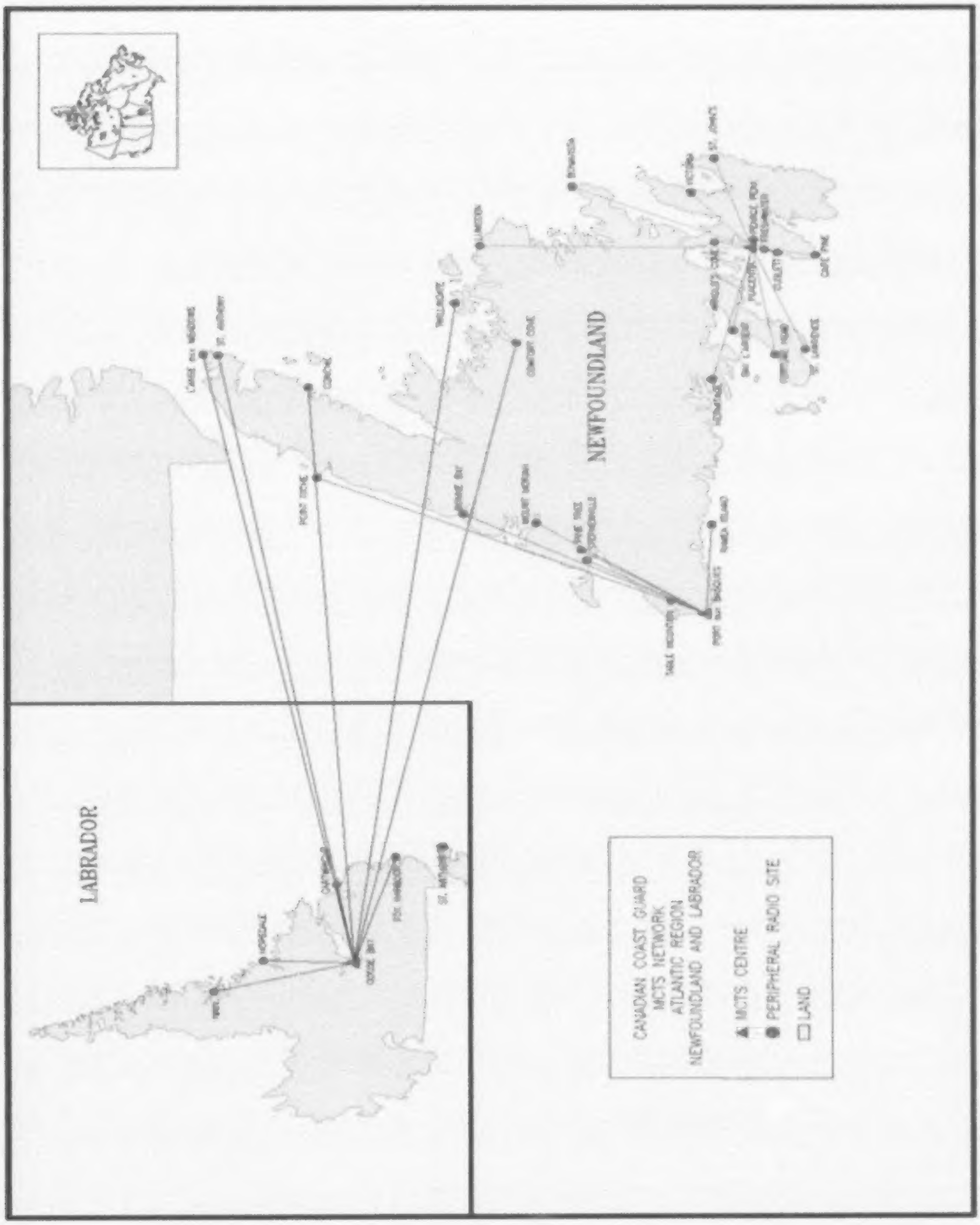

NEWFOUNDLAND
LABRADOR
ST. JOHN'S
GOOSE BAY
HOPEDALE
NAIN
CARTWRIGHT
CANADIAN COAST GUARD
MCTS NETWORK
ATLANTIC REGION
NEWFOUNDLAND AND LABRADOR
▲ MCTS CENTRE
● PERIPHERAL RADIO SITE
☐ LAND

Figure 2-4 - MCTS Network - Atlantic Region – Maritimes

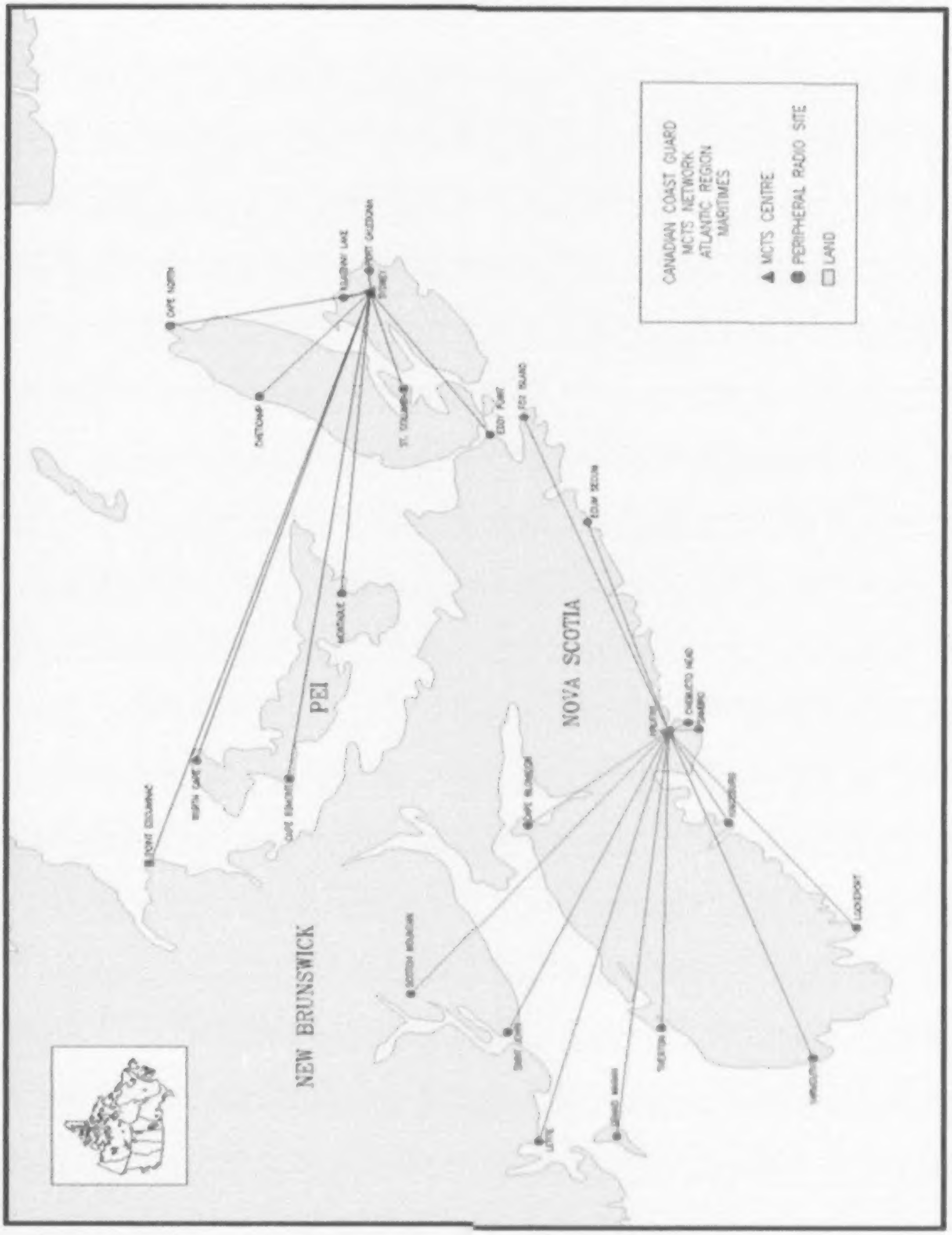

CANADIAN COAST GUARD
MCTS NETWORK
ATLANTIC REGION
MARITIMES
▲ MCTS CENTRE
● PERIPHERAL RADIO SITE
☐ LAND
NEW BRUNSWICK
PEI
NOVA SCOTIA
CAPE NORTH
CHETICAMP
SYDNEY
PORT CALEDONIA
EDDY POINT
HALIFAX
CHEBUCTO HEAD
LOCKEPORT
NORTH CAPE
CAPE EGMONT
POINT ESCUMINAC
MONTAGUE
CAPE BLOMIDON
SAINT JOHN
GRAND MANAN
YARMOUTH

Figure 2-5 - MCTS Network - Gulf and St. Lawrence River

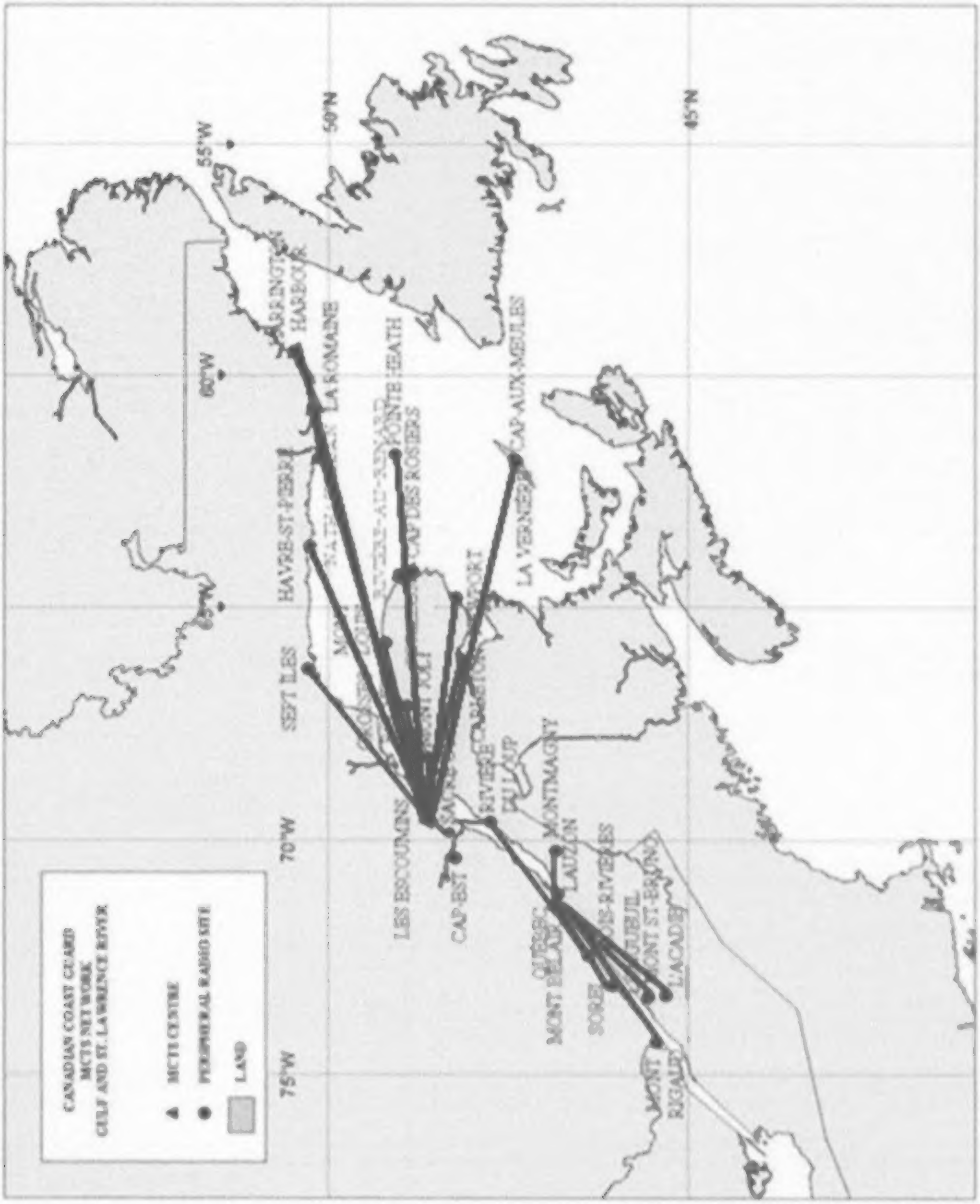

CANADIAN COAST GUARD
MCTS NETWORK
GULF AND ST. LAWRENCE RIVER
▲ MCTS CENTRE
● PERIPHERAL RADIO SITE
▨ LAND
55°W
60°W
65°W
70°W
75°W
50°N
45°N
HARRINGTON HARBOUR
LA ROMAINE
HAVRE-ST-PIERRE
NATASHQUAN
SEPT ILES
POINTE HEATH
RIVIERE-AU-RENARD
CAP DES ROSIERS
CAP-AUX-MEULES
LA VERNEE
MONT JOLI
LES ESCOUMINS
CAP-EST
RIVIERE DU LOUP
MONTMAGNY
LAUZON
QUEBEC
MONT BELAIR
SOREL
TROIS-RIVIERES
MONT ST-BRUNO
L'ACADIE
MONT RIGAUD

Figure 2-6 - MCTS Network – Arctic

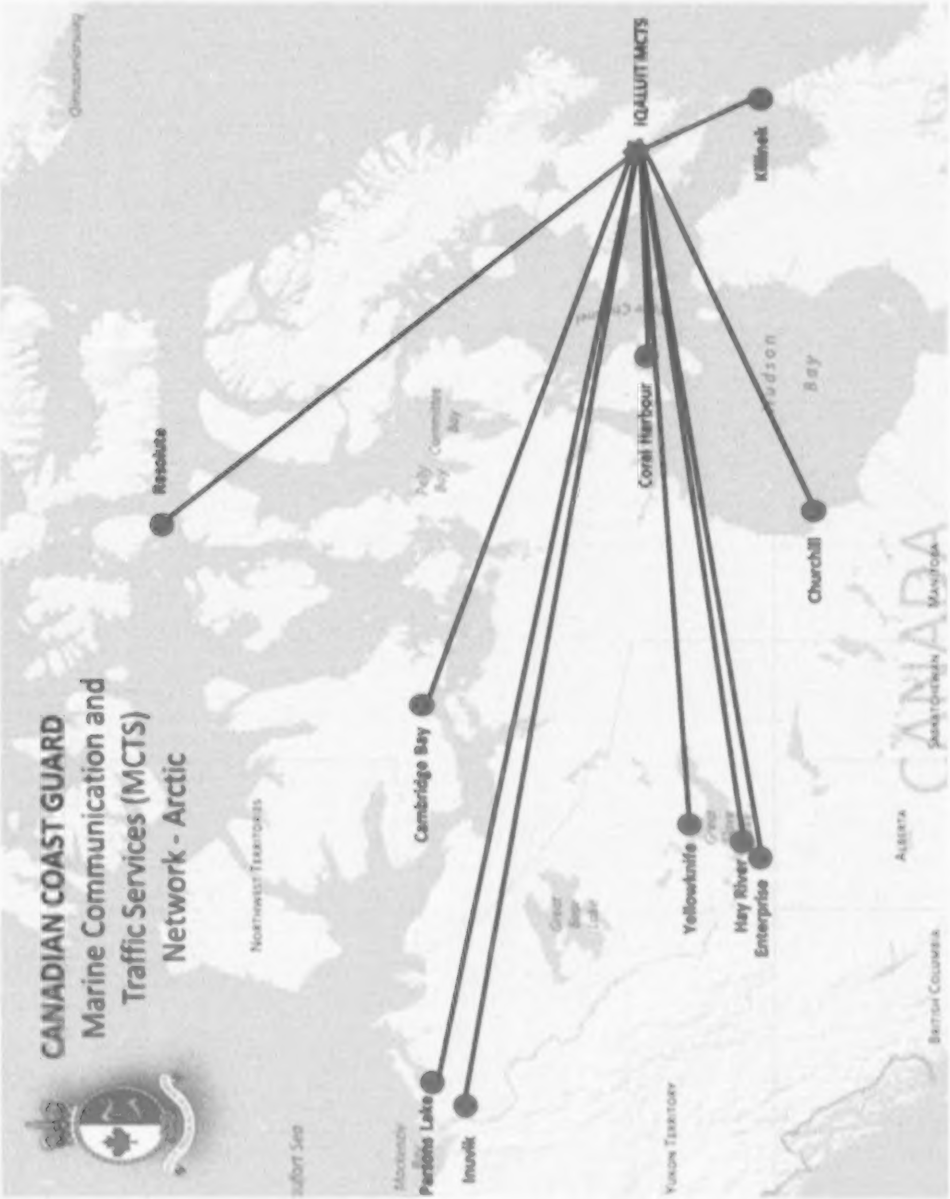
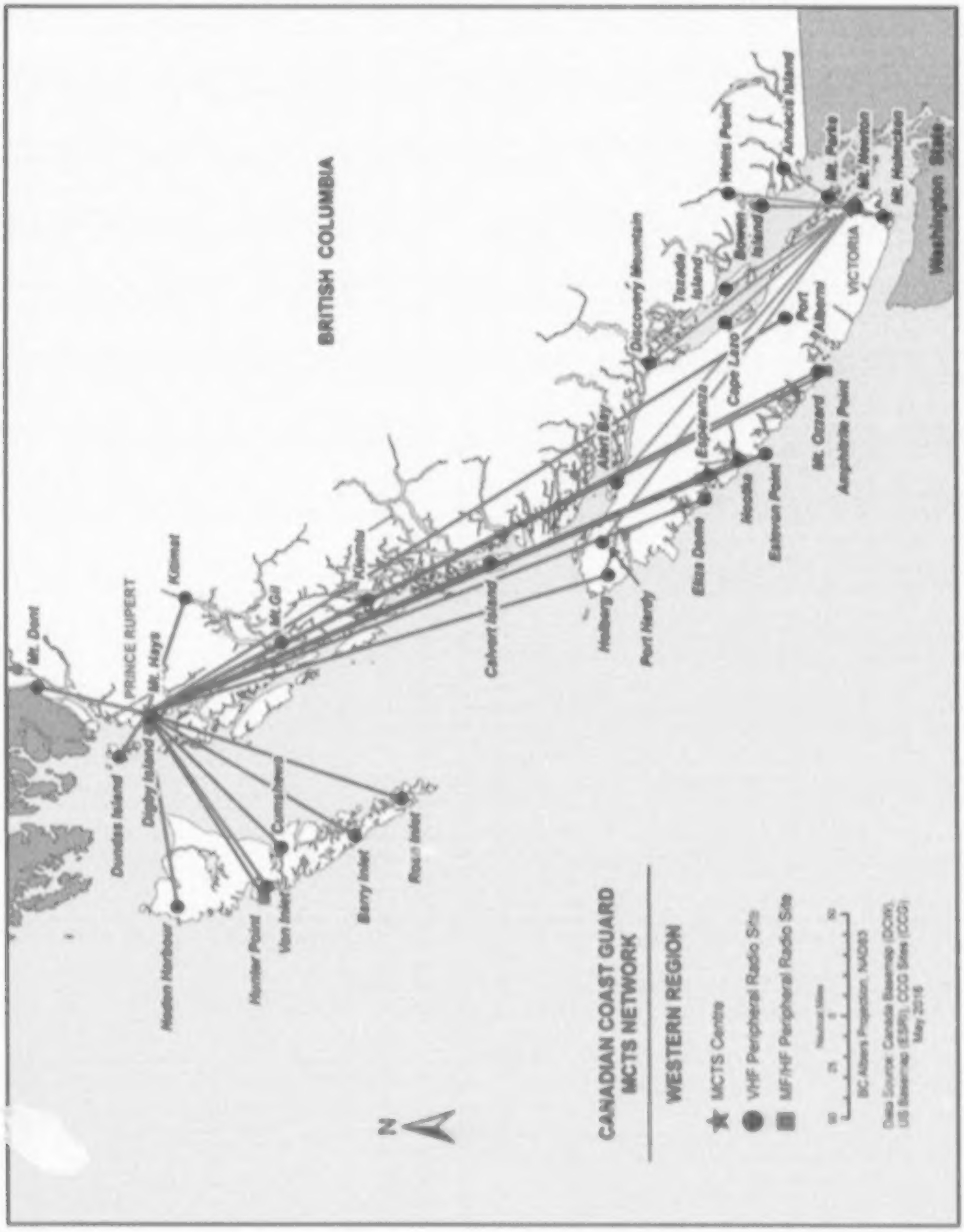

CANADIAN COAST GUARD
Marine Communication and Traffic Services (MCTS) Network - Arctic
IQALUIT MCTS
Killinek
Resolute
Coral Harbour
Churchill
Cambridge Bay
Yellowknife
Hay River
Enterprise
Parsons Lake
Inuvik
Hudson Bay
Pelly Bay
Committee Bay
Foxe Channel
Great Bear Lake
Great Slave Lake
Beaufort Sea
Mackenzie Bay
Qimusseriarsuaq
Northwest Territories
Yukon Territory
Alberta
British Columbia
Saskatchewan
Manitoba
CANADA

Figure 2-7 - MCTS: Pacific Region


BRITISH COLUMBIA
Washington State
PRINCE RUPERT
VICTORIA
Mt. Dent
Mt. Hays
Kitimat
Dundas Island
Digby Island
Cumshewa
Naden Harbour
Hunter Point
Van Inlet
Barry Inlet
Rose Inlet
Mt. Gil
Klemtu
Calvert Island
Holberg
Port Hardy
Eliza Dome
Nootka
Estevan Point
Esperanza
Alert Bay
Cape Lazo
Mt. Ozzard
Amphitrite Point
Port Alberni
Discovery Mountain
Texada Island
Bowen Island
Watts Point
Annacis Island
Mt. Parke
Mt. Newton
Mt. Helmcken
N
CANADIAN COAST GUARD
MCTS NETWORK
WESTERN REGION
MCTS Centre
VHF Peripheral Radio Site
MF/HF Peripheral Radio Site
Nautical Miles
50
25
0
50
BC Albers Projection, NAD83
Data Source: Canada Basemap (DCW), US Basemap (ESRI), CCG Sites (CCG)
May 2016

2.5 RADIO BEACON STATIONS CONTINUOUSLY IN OPERATIONS

Table 2-30 - Atlantic Coast, Gulf and St. Lawrence River to Montréal, Eastern Arctic

Name and Location	Frequency kHz	Range Nautical Miles	Identifier	Remarks
St. Pierre and Miquelon (France) 46°45'45"N 056°10'10"W	386	100	••• (S) •——• (P)	Open year round.

Table 2-31 - Pacific Coast (Radio Beacons located in British Columbia)

Name / Location	Frequency kHz	Range Nautical Miles	Identifier	Remarks
Active Pass 48°52'26"N 123°17'23"W	378	50	•— (A) •——• (P)	Open year round. Caution: bearing error could result from coastal refraction. (NAV Canada).
Dead Tree Point 53°21'01"N 131°56'23"W	248	25	——•• (Z) ——•• (Z) •——• (P)	Open year round (NAV Canada).
Massett 54°01'54"N 132°07'38"W	278	25	•———— (1) ••— (U)	Open year round (NAV Canada).
Prince Rupert 54°15'49"N 130°25'20"W	218	100	•——• (P) •—• (R)	Open year round (NAV Canada).
Sandspit (The NAV Canada operated Sandspit radio beacon on 368 kHz is not the same one used for DGPS.) 53°11'48"N 131°46'33"W	368	75	——•• (Z) •——• (P)	Open year round. Caution: bearing error could result from coastal refraction. (NAV CANADA).
Tofino 49°02'54"N 125°42'16"W	359	50	—•—— (Y) •— (A) ——•• (Z)	Open year round. Caution: bearing error could result from coastal refraction. (NAV Canada).

2.6 RADAR BEACON (RACONS)

2.6.1 *Atlantic Coast, Gulf and St. Lawrence River to Montréal, Eastern Arctic*

Table 2-32 - Radar Beacons located in Newfoundland

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Cape Harrigan Light 55°50'34"N 060°18'56.8"W	10	160 to 315	— • — (K)	Navigation season only.
Channel Head Lightstation 47°33'57"N 059°07'24.6"W	10	360	— • — • (C)	Open year round.
Come by Chance Light and Whistle Buoy « PCC » 47°19'29.4"N 054°07'26.3"W	8	360	• — (A)	Open year round.
Domino Point 53°27'42.4"N 055°44'31"W	10	360	— • — — (Y)	Navigation season only.
Grappling Island Light 54°27'22.2"N 056°52'52.3"W	10	360	— — • (G)	Navigation season only.
Hens and Chickens 56°30'39.5"N 060°38'37.5"W	10	360	• — — (W)	Open year round.
Quaker Hat 54°44'12.5"N 057°20'37.7"W	10	360	— — • — (Q)	Open year round.
White Bear Island (Nanuaktok) 55°26'00.7"N 059°30'40.9"W	10	360	— • (N)	Navigation season only.
Negro Island Light 56°21'06"N 060°32'41"W	6	360	— — • • (Z)	Open year round.

Table 2-33 - Radar Beacons located in Nova Scotia

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Bear Cove Light and Bell Buoy "H6" 44°32'36.3"N 063°31'19.6"W	8	360	— • (N)	Open year round.
Cape Forchu 43°47'38.8"N 066°09'19.3"W	10	360	— • • • (B)	Open year round.

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Cape Sable 43°23'24"N 065°37'16.9"W	10	360	— • — • (C)	Open year round.
Caribou Harbour Light and Bell Buoy "SS1" 45°45'08"N 062°39'44"W	10	360	— — • (G)	Navigation season only.
Chebucto Head Light 44°30'26.6"N 063°31'21.8"W	10	360	— — • • (Z)	Open year round.
Cranberry Islands Light 45°19'29.6"N 060°55'38.2"W	10	360	— • • • (B)	Open year round.
Lurcher Shoal Bifurcation Light Buoy "NM" 43°48'57"N 066°29'58"W	8	360	— • — (K)	Open year round.

Table 2-34 - Radar Beacons located in New Brunswick

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Gannet Rock Light 44°30'37.1"N 066°46'52.9"W	10	360	— — • (G)	Open year round.
Miscou Island Light 48°00'33.7"N 064°29'34.7"W	15.5	300	— • — (K)	Open year round.
Portage Island Channel Range Rear Light 47°07'42.3"N 065°02'31.2"W	10	360	— — • (G)	Open year round.
Saint John Harbour Light and Whistle Buoy "J" 45°12'55.3"N 066°02'36.9"W	8	360	— • (N)	Open year round.
Shippegan North Channel Light and Whistle Buoy "EE" 47°53'14.2"N 064°45'47.6"W	10	360	— — • (G)	Open year round.

Table 2-35 - Radar Beacons located in Prince Edward Island

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Confederation Bridge Pier Shaft 21 46°12'39.9"N 063°45'05.5"W	30	360	— (T)	Open year round.
Confederation Bridge Pier, Shaft 22 46°12'33.8"N 063°45'13.1"W	30	360	—••• (B)	Open year round.

Table 2-36 - Radar Beacons located in Québec

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Anse aux Basques 48°19'07.5"N 069°24'46.5"W	10	360	—•— (K)	Open year round.
Banc du Brûlé, Downstream Rear Range Light 47°05'22.7"N 070°42'38.9"W	10	360	—•— (K)	Open year round
Beacon Island, Ungava Bay 58°54'08"N 066°20'30.5"W	10	360	——• (G)	Navigation season only.
Gentilly Front Range Light 46°25'48"N 072°15'46.9"W	10	360	—•— (K)	Open year round.
Île aux Raisins Range Rear Light 46°05'52.7"N 072°57'58.4"W	10	360	—•— (K)	Open year round.
Île Richelieu 46°38'33.5"N 071°54'35.2"W	10	360	—— (M)	Open year round.
Île Saint-Ours South Light 45°54'20.5"N 073°13'31.5"W	10	360	—— (M)	Open year round.
Îles Mermettes/ Rivière St-Paul 51°19'20.5"N 057°50'34.6"W (NAD 27)	10	360	—— (M)	Open year round.
Kahnawake Front Range 45°24'10.3"N 073°47'45.7"W	4	360	——• (G)	Navigation season only.
Kitdliat Island, Ungava Bay 59°58'34.5"N 069°37'30.6"W	10	360	—•— (K)	Navigation season only.

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Lake St. Pierre Upstream (Curve Louiseville) Rear Range Light 46°11'00.4"N 072°55'38.2"W	10	360	— • (N)	Open year round.
Lavaltrie Rear Range 45°52'43.1"N 073°16'02.6"W	10	360	— • (N)	Open year round.
Nicolet Sector Light 46°15'27.1"N 072°39'03.5"W	10	360	— — • (G)	Open year round.
Nipper Island, Ungava Bay 59°00'26.5"N 068°53'18"W	10	360	— — • (G)	Navigation season only.
Pointes aux Trembles (Neuville) 46°41'47.4"N 071°34'22.5"W	10	360	— — • (G)	Open year round.
Pointe de l'Est, East Cardinal Light Buoy YY 47°36'45.2"N 061°19'39.4"W	10	360	— — • (G)	Navigation season only.
Pointe de Manicouagan 49°06'04.4"N 068°11'37.8"W	10	360	— • • — (X)	Open year round.
Pointe du Nord-Est/ Rivière St. Augustin 51°10'37.4"N 058°25'42.7"W (NAD 27)	10	360	— • (N)	Open year round.
Pointe Penouille Rear Range 48°51'11.8"N 064°25'36.3"W	10	360	— — • (G)	Open year round.
Pointe Qirniraujaq (Congaraya) 58°34'59.4"N 068°00'24.9"W (NAD 27)	10	360	— • • — (X)	Navigation season only.
Port de Québec – (Pont de Québec North of Channel) 46°44'47.4"N 071°17'19.1"W	10	360	— (T)	Open year round.
Port de Québec – (Pont de Québec South of Channel) 46°44'40.3"N 071°17'14.9"W	10	360	— • • • (B)	Open year round.
Port de Rimouski Front Range Light 48°28'06"N 068°31'06.1"W	10	360	— • (N)	Open year round.

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
St. Jean, Île d'Orléans 46°54'56.5"N 070°53'47"W	10	360	— — • (G)	Open year round.
Trois-Rivières-West (Pont Laviolette - North of Channel) 46°18'29.1"N 072°33'45.9"W	10	360	— (T)	Open year round.
Trois-Rivières-West (Pont Laviolette - South of Channel) 46°18'24.4"N 072°33'37.7"W	10	360	• • • • (H)	Open year round.
Yamachiche Curve Front Range Light/Lac St-Pierre 46°12'18.7"N 072°49'49.1"W	10	360	— — (M)	Open year round.

Table 2-37 - Radar Beacons located in Manitoba

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Churchill 58°47'00.9"N 094°13'59.2"W	10	360	— — • (G)	Navigation season only.

Table 2-38 - Radar Beacons located in Nunavut and Nunavik

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Broomfield Island Hudson Bay 55°40'24"N 079°14'18"W (NAD 27)	10	360	— • (N)	Navigation season only.
Coats Island 62°10'20"N 083°08'00"W (NAD 27)	10	360	— • — • (C)	Navigation season only.
Nottingham Island 63°05'10"N 077°57'00"W (NAD 27)	10	360	— • (N)	Navigation season only.
Sentry Island 61°09'35.6"N 093°52'14.6"W	10	360	— • — • (C)	Navigation season only.
Walrus Island 61°57'59.4"N 092°28'41.1"W	10	360	— • — — (Y)	Navigation season only.

Table 2-39 - Radar Beacons located in Nunavut

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Mansel Island 62°25'00"N 079°36'30"W	10	360	— • — (K)	Navigation season only.

Table 2-40 - Radar Beacons located in the United States

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Light 73 44°55'33.5"N 075°05'43.1"W	6 to 8	360	— — (M)	Navigation season only.
Light Buoy 153 44°30'37.2"N 075°46'07.6"W		360	— — (M)	Navigation season only.

2.6.2 *Lake Winnipeg*

Table 2-41 - Radar Beacons located in Lake Winnipeg

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
East Breakwall Red River Entrance 50°24'05"N 096°48'45.7"W	5	360	— — • (G)	Navigation season only.

2.6.3 *Great Lakes (includes St. Lawrence River to Montréal)*

Table 2-42 - Radar Beacons located in Ontario unless noted

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Granite State Shoal Light 214, St. Lawrence Seaway (USA) 44°17'0.69"N 076°0'58.39"W			— — (M)	Operated by USA.
Chapman Shoal Light 222, St. Lawrence Seaway (USA) 44°15'27.17"N 076°4'18.45"W			— • — • (C)	Operated by USA.
Prescott/ Ogdensburg Bridge Piers (South Side), St. Lawrence River 44°44'01.7"N 075°27'29.9"W	10	360	• • • • (H)	Navigation season only.

Name and Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Prescott/ Ogdensburg Bridge Piers (North Side), St. Lawrence River 44°44'11.3"N 075°27'37.4"W	10	360	— (T)	Navigation season only.
Long Point, Lake Erie 42°32'55.2"N 080°02'58.1"W	10	360	— — (M)	Operational year round.
Southeast Shoal, Lake Erie 41°49'34.8"N 082°27'46.1"W	10	360	— • — (K)	Operational year round.
Pelee Passage, Lake Erie 41°51'14.9"N 082°34'54.7"W	10	360	— — (M)	Operational year round.
East Outer Channel (Light 1E), Lake Erie (USA) 41°54'48.2"N 083°06'24.1"W	12	360	— — — (O)	Operated by USA. March 15 - January 15.
Detroit River Light, Detroit River (USA) 42°00'02.9"N 083°08'28.5"W	10	360	— • • — (X)	Operated by USA Operational year round.
Lake St. Clair Light, Lake St. Clair (USA) 42°27'55.1"N 082°45'15.4"W	6	360	— • (N)	Operated by USA.
Light 7, Lake Huron (USA) 43°03'34.838"N 082°25'03.981"W	6		— (T)	Operated by USA. May 15 – October 15.
Gladman Rock, Georgian Bay 45°20'51.9"N 080°18'52.7"W	10	360	— — • (G)	Navigation season only.
Gereaux Island, Georgian Bay 45°44'40"N 080°39'32.7"W	10	360	— — • (G)	Navigation season only.
Mamainse Harbour, Lake Superior 47°02'15.1"N 084°47'11.5"W	10	360	— — (M)	Navigation season only.
Comfort Island Shoal Light 199, St. Lawrence River (USA) 44°19'26.038"N 075°56'19.493"W			— — (M)	Operated by USA.
Peche Island, Lake St. Clair 42°21'26.038"N 082°54'24.7"W			— (T)	Operated by USA.

2.6.4 *Pacific Coast*

Table 2-43 - Radar Beacons Located in British Columbia

Name Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Alexandra Bank Bifurcation Light Buoy Dax 54°14'08.1"N 130°34'06.1"W	15	360	—•— (K)	Open year round.
Billard Rock Whistle Buoy "M3" Quatsino Sound 50°25'47.2"N 127°57'47.7"W	15	360	——• (G)	Open year round.
Burrard Inlet Cautionary Light Buoy "QB" 49°19'02.2"N 123°12'04.5"W	15	360	—•— (K)	Open year round.
Butterworth Rocks 54°14'08"N 130°58'30"W (NAD 27)	15	360	—••— (X)	Open year round.
Canoe Pass Light and Bell Buoy "T14" 49°02'17.4"N 123°15'22.7"W	15	360	—•— (K)	Open year round.
Davey Rock Light Buoy "N32" 50°51'36.3"N 127°31'9.7"W	15	360	——•— (Q)	Open year round.
Esperanza Inlet Light and Whistle Buoy "M40" 49°47'07.4"N 127°02'28.5"W	15	360	—•— (K)	Open year round.
Hanmer Rocks Browns Passage 54°19'26.5"N 130°49'20.3"W	15	360	—— (M)	Open year round.
Jacinto Island 52°56'31"N 129°36'43"W (NAD 27)	15	360	——•— (Q)	Open year round.
Juan De Fuca Traffic Lane Separation Light Buoy "J" USA 48°29'36.8"N 125°00'00"W	8	360	——— (O)	Open year round.
Lawn Point Sector Light 53°25'29.8"N 131°54'50.3"W (NAD 27)	15	180	—•— (K)	Open year round.

Name Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Nepean Rock Light and Bell Buoy "E78" 53°12'14.2"N 129°36'26.1"W	15	360	— • (N)	Open year round.
Pine Island 50°58'32.2"N 127°43'40.7"W	15	270	— — (M)	Open year round.
Race Rocks South Cautionary Light Buoy "VF" 48°14'04.4"N 123°31'58.7"W	15	360	— • • • (B)	Open year round.
Raven Clan Light Buoy "EF9" 54°15'59.98"N 131°05'23.96"W	15	360	— — • (G)	Open year round.
Ridley Island Light and Bell Buoy "D27" 54°11'56"N 130°21'26.2"W	15	360	— — • (G)	Open year round
Roberts Bank 49°05'15.7"N 123°18'36.9"W	15	360	— • (N)	Open year round.
Roberts Bank Cautionary Light Buoy "TA" 49°04'25.4"N 123°22'50.7"W	15	360	— — — (O)	Open year round.
Rosario Strait Traffic Lane Entrance Buoy R (USA) 48°16'25.3"N 123°6'34.6"W			— (T)	Operated by U.S.A.
Rose Spit 54°09'40"N 131°39'35.2"W (NAD 27)	15	360	— — • — (Q)	Open year round.
Rosenfeld Rock Light Buoy "U59" 48°48'11.4"N 123°01'38.7"W	15	360	— • — • (C)	Open year round.
Seal Rocks 53°59'58.8"N 130°47'31.3"W (NAD 27)	15	360	— • — — (Y)	Open year round.
Seapool Rocks Light and Whistle Buoy "Y49" 48°48'53.3"N 125°12'19.1"W	15	360	— • — (K)	Open year round.
Stenhouse Shoal, Light and Whistle Buoy "D59" 54°20'07"N 130°56'03"W	15	360	— • — • (C)	Open year round.

Name Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Thrasher Rock 49°09'00"N 123°38'30"W	15	360	—••— (X)	Open year round.
Vancouver Approach Cautionary Light Buoy "QA" 49°16'34.4"N 123°19'18.4"W	15	360	——• (G)	Open year round.
Victoria Harbour Cautionary Light Buoy "VH" 48°22'31.3"N 123°23'33.7"W	15	360	—•— (K)	Open year round.

2.6.5 *Western Arctic*

Table 2-44 - Radio Beacons Located in Northwest Territories and Nunavut

Name Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Atkinson Point 69°56'46.7"N 131°26'59.3"W	5	360	—•—— (Y)	Navigation season only.
Baillie Islands 70°38'16.5"N 128°15'46.6"W	20	360	—•— (K)	Navigation season only.
Calton Point 69°30'09"N 139°06'30"W (NAD 27)	12	360	——• (G)	Navigation season only.
Cape Dalhousie 70°16'05"N 129°42'36"W (NAD 27)	5	360	——•• (Z)	Navigation season only.
Collinson Head 69°34'30"N 138°51'34"W	10	360	—• (N)	Navigation season only.
Hardisty Island 61°43'52.7"N 114°35'00.2"W	10	360	——• (G)	Navigation season only.
Kay Point 69°17'26"N 138°22'42"W (NAD 27)	20	190	—•— (K)	Navigation season only.
Pelly Island 69°37'27.6"N 135°29'10.3"W (NAD 27)	5	360	—•—— (Y)	Navigation season only.
Pilot Islands 62°13'04"N 114°06'49.3"W	15	360	—•—• (C)	Navigation season only.

Name Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Pitt Island 69°09'15"N 136°10'30"W (NAD 27)	10	360	—•— (K)	Navigation season only.
Pullen Island 69°46'26.2"N 134°24'15.7"W	20	360	——• (G)	Navigation season only.
Relief Island 70°08'45"N 130°49'30"W (Chart 7664 – NAD 27)	20	210	——•• (Z)	Navigation season only.
Shingle Point 69°00'30"N 137°34'12"W (NAD 27)	10	360	—•—— (Y)	Navigation season only.
Tuktoyaktuk Island Range 69°27'21.3"N 132°59'49"W (NAD 27)	5	360	—•—• (C)	Navigation season only.
Warren Point 69°45'00"N 132°21'30"W	10	360	—•—• (C)	Navigation season only.
Cache Point 68°39'24"N 113°25'00"W	20	360	——• (G)	Navigation season only.
Cap Bexley 69°00'40"N 115°55'00"W	10/20	210	—•—— (Y)	Navigation season only.
Delta Island 68°35'26"N 100°01'45"W (Datum unknown)	20	360	——• (G)	Navigation season only.
McClintock Point 69°18'45"N 099°53'00"W (Datum unknown)	20	360	—•—• (C)	Navigation season only.
Nordenskiold Islands 68°21'12"N 100°47'12"W (Datum unknown)	10	360	—•— (K)	Navigation season only.
Ristvedt Island 68°30'51.8"N 099°15'13.9"W (Datum unknown)	10	360	—•—— (Y)	Navigation season only.

Name Location	Range Nautical Miles	Arc Degrees	Identifier	Remarks
Taylor Point 69°37'15"N 095°35'24"W (Datum unknown)	6	360	— — • — (Q)	Navigation season only.
Wiik Island 68°31'24"N 099°33'07"W (Datum unknown)	10	360	— — • • (Z)	Navigation season only.

PART 3 VESSEL TRAFFIC SERVICES

The purpose of this section is to describe to shipboard personnel the ship reporting procedures to be followed by vessels when within or intending to enter a Vessel Traffic Services (VTS) zone.

3.1 CANADIAN COAST GUARD RESPONSIBILITIES

There is no intention on the part of the Canadian Coast Guard to attempt to navigate or manoeuvre ships from a shore station and nothing in this publication overrides the authority of the master of his responsibility for the safe navigation of his ship. Information passed to the master is intended to assist him in the safe conduct of his ship.

A MCTS officer may, with respect to any vessel of a prescribed class that is about to enter or is within a VTS zone:

a) grant a clearance to the vessel to enter, leave or proceed within the VTS zone;

b) direct the master, pilot or person in charge of the deck watch of the vessel to provide any pertinent information in respect of that vessel that may be specified in the direction;

c) direct the vessel to use any radio frequencies in communications with coast stations or other vessel that may be specified in the direction; and

d) direct the vessel at the time, between the times or before or after any event that may be specified in the direction;

    i) to leave a VTS zone,

    ii) to leave or refrain from entering any area within a VTS zone that may be specified in the direction, or

    iii) to proceed to or remain at any location within a VTS zone that may be specified in the direction.

A vessel, as well as the master, pilot or person in charge of the deck watch of a vessel, shall comply with a direction given to it or them by a MCTS officer. Notwithstanding, the master, pilot or person in charge of the deck watch may take any action that may be required to ensure the safety of life, the ship or any other ship.

The master of a ship shall ensure that before the ship enters a VTS zone the ship's radio equipment is capable of receiving and transmitting radio communications on the appropriate VTS sector frequency.

3.2 TRAFFIC CLEARANCE

A "traffic clearance" is an authorization for a ship to proceed subject to such conditions as may be included in the authorization. The traffic clearance is predicated upon ship report information and known waterway/traffic conditions. A traffic clearance does not eliminate the need for other authorizations required by legislation or by laws.

Should any factor upon which the traffic clearance is predicated alter to the detriment of safe navigation, the traffic clearance may be delayed or other conditions may be attached to the traffic clearance.

A traffic clearance is required prior to:

a) entering a VTS zone;

b) commencing a departure manoeuvre;

c) commencing a manoeuvre that may be detrimental to safe navigation; and

d) proceeding after being stranded, stopped due to breakdown of main propulsion machinery or steering gear, or involved in a collision.

3.3 COMMUNICATIONS

Radiotelephone procedures used in communicating with a MCTS Centre are those specified by the International Telecommunications Union in the "*Manual for Use by the Maritime Mobile and Maritime Mobile Satellite Services*".

A continuous listening watch shall be maintained on the appropriate VTS sector frequency on radio equipment located:

a) at any place on board the ship, where the ship is at anchor or moored to a buoy; and

b) in the vicinity of the ship's conning position, where the ship is underway.

A continuous listening watch may be suspended if a MCTS officer directs the ship to communicate with coast stations and/or other ship stations on a different VHF radio frequency.

All times given in local VTS zone reports should be in local time and in accordance with the 24-hour clock system.

Navigation safety calls on designated VTS sector frequencies should be kept to the minimum consistent with the safety requirement of the situation.

3.3.1 *Communication Difficulties*

Where a ship, for any reason other than ship board radio equipment failure is unable to obtain the required traffic clearance or after receiving a traffic clearance, is unable to maintain direct communication with the appropriate MCTS Centre, the master may nevertheless proceed on his route, but shall take all reasonable measures to communicate with the appropriate MCTS Centre as soon as possible and obtain the specified clearance.

3.3.2 *Ship Board Radio Communications Equipment Malfunction*

In the event of a ship board radio communications equipment failure where the ship is unable to obtain the required traffic clearance or after receiving a traffic clearance, is unable to maintain direct communication with the appropriate MCTS Centre, the vessel shall:

a) if it is in a port or anchorage where repairs can be made, remain in the port until the vessel is able to establish communications in accordance with the *Canada Shipping Act, 2001*, Part 5, Section 6(a); or

b) if it is not in a port or anchorage where repairs can be made, proceed to the nearest reasonably safe port or anchorage on its route and remain there until the vessel is able to establish communications in accordance with the *Canada Shipping Act, 2001*, Part 5, Section 6(b).

3.4 OFFSHORE SYSTEMS

3.4.1 *Zone Description*

3.4.1.1 Eastern Canada

The Eastern Canada VTS zone consists of the Canadian waters on the east coast of Canada south of the 60th parallel of north latitude and in the St. Lawrence River east of 66°00' west longitude except the waters within Ungava Bay and the waters within the VTS zones referred to in the *Vessel Traffic Services Zone Regulations*.

3.4.1.2 Western Canada

VTS zones in Western Canada include all Canadian waters on the west coast of Canada as described in the VTS zone schedules of this Part and referred to in the *Vessel Traffic Services Zones Regulations*.

3.4.1.3 Northern Canada

The Northern Canada Vessel Traffic Services (NORDREG) zone consists of:

a) the shipping safety control zones prescribed by the *Shipping Safety Control Zones Order*;[2]
b) the waters of Ungava Bay, Hudson Bay and Kugmallit Bay that are not in a shipping safety control zone;
c) the waters of James Bay;
d) the waters of Koksoak River from Ungava Bay to Kuujjuaq;
e) the waters of Feuilles Bay from Ungava Bay to Tasiujaq;
f) the waters of Chesterfield Inlet that are not within a shipping safety control zone and the waters of Baker Lake; and
g) the waters of Moose River from James Bay to Moosonee.

3.5 LOCAL VESSEL TRAFFIC SERVICES (VTS) ZONES

With respect to the VTS zones specified in *the Vessel Traffic Services Zone Regulations*, these regulations apply in respect of:

a) every ship 20 metres or more in length;
b) every ship engaged in towing or pushing any vessel or object, other than fishing gear, where;
   i) the combined length of the ship and any vessel or object towed or pushed by the ship is 45 metres or more in length, or
   ii) the length of the vessel or object being towed or pushed by the ship is 20 metres or more in length.

With respect to the VTS zones specified in the *Vessel Traffic Services Zone Regulations*, these regulations do not apply in respect of:

a) a ship engaged in towing or pushing any vessel or object within a log booming ground;
b) a pleasure yacht that is less than 30 metres in length; and

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[2] The Shipping Safety Control zones cover Canada's coastal northern waters within the area enclosed by the 60th parallel of north latitude, the 141st meridian of west longitude and the outer limit of the exclusive economic zone; however, where the international boundary between Canada and Greenland is less than 200 nautical miles from the baselines of the territorial sea of Canada, the international boundary shall be substituted for that outer limit.

c) a fishing vessel that is less than 24 metres in length and not more than 150 tons gross tonnage.

Participation is mandatory.

3.5.1 *Local Vessel Traffic Services (VTS) Zone Reports*

With respect to local VTS zones as prescribed in the *Vessel Traffic Services Zone Regulations* the master of the ship shall report to a MCTS officer in accordance with the following requirements:

3.5.2 *Information Required*

Dependent upon the reporting requirement the following information may be required to be reported:

a) the name of the ship;
b) the radio call sign of the ship;
c) the position of the ship;
d) the estimated time that the ship will enter the VTS zone;
e) the destination of the ship;
f) the estimated time that the ship will arrive at its destination;
g) whether any pollutant or dangerous goods cargo is carried on board the ship or any vessel or object being towed or pushed by the ship;
h) the estimated time that the ship will depart the berth; and
i) the estimated time at which the ship will next arrive at a location requiring a report.

3.5.3 *Entering a Zone*

At least 15 minutes before a ship intends to enter a VTS zone, a report shall be made specifying the information listed in a), b), c), d), e), f) and g).

Exception: Ships already in possession of a valid Traffic Clearance issued by ECAREG, NORDREG or VTS Offshore are not required to provide this report.

3.5.3.1 Arrival at a Calling-In-Point (CIP)

When a ship arrives at a CIP a report shall be made specifying the information listed in a), c) and i).

3.5.3.2 Arrival at Berth

As soon as practicable after a ship arrives at a berth, a report shall be made specifying the information listed in a) and c).

3.5.3.3 Departure Manoeuvre

Departure manoeuvre is defined as an operation during which a vessel leaves a berth and gets safely underway:

a) immediately before commencing a departure manoeuvre, a report shall be made specifying the information listed in a), b), c), e), f), g) and h);
b) immediately after completing the departure manoeuvre, a report shall be made specifying the information listed in a), c) and i).

3.5.3.4 Manoeuvres

A traffic clearance is required 15 minutes prior to commencing any manoeuvre such as:

a) a compass adjustment;
b) the calibration and servicing of navigational aids;
c) a sea trial;
d) a dredging operation; and
e) the laying, picking up and servicing of submarine cables; or any other manoeuvre that may be detrimental to safe navigation.

Prior to commencing a manoeuvre a report shall be made specifying the information listed in a) and c), plus a description of the intended manoeuvre.

As soon as practical after the manoeuvre is completed, a report describing the manoeuvre just completed shall be made.

3.5.4 *Variations from Requirement*

Ferries and other vessels on regularly scheduled voyages may be exempted from making routine reports. Formal variations to reporting procedures will be granted only where alternate arrangements to provide essential information are made and where the equivalent procedure or practice is deemed to be as safe as that required in the regulations.

Formal variations may be obtained by submitting a written request to the appropriate Regional MCTS Superintendent, Canadian Coast Guard (see Section 1.7).

In circumstances other than those described above, informal variations may be granted from time to time on a one time only basis by a MCTS officer where the procedure or practice requested is deemed to be as safe as that required in the regulations.

3.5.5 *Change in Information*

A report shall be made whenever a significant change occurs in the information previously provided in any report made pursuant to the *Vessel Traffic Services Zone Regulations*.

3.5.6 *Non-Routine Reports*

Pursuant to the *Vessel Traffic Services Zone Regulation*, a report indicating the vessel's name, position and a description of the incident shall be made prior to the vessel proceeding as soon as the master becomes aware of any of the following conditions:

a) the occurrence on board the ship of any fire;
b) the involvement of the ship in a collision, grounding or striking;
c) any defect in the ship's hull, main propulsion systems or steering systems, radars, compasses, radio equipment, anchors or cables;
d) any discharge or probable discharge of a pollutant from the ship into the water;
e) another ship in apparent difficulty;
f) any obstruction to navigation;
g) any aid to navigation that is functioning improperly, damaged, off-position or missing;
h) the presence of any pollutant in the water;
i) the presence of a ship that may impede the movement of other ships; and

j) any ice and weather conditions that are detrimental to safe navigation.

Notes: Items f), g) and h) are not required if the information has been previously promulgated by a Notice to Shipping.

Mariners are encouraged to provide, on a voluntary basis, any information pertaining to charts and publications which may not be on board so that arrangements can be made to embark the necessary items.

3.6 ADDITIONAL REPORTING REQUIREMENTS

3.6.1 *Co-Operative Vessel Traffic Services (CVTS) Agreement*

In 1979, by formal agreement, the Canadian Coast Guard and the United States Coast Guard established the Co-operative Vessel Traffic Services (CVTS) for the Strait of Juan de Fuca region. The purpose of this agreement is to provide for a co-operative system of vessel traffic management in the applicable waters in order to enhance safe and expeditious movement of vessel traffic while minimizing the risk of pollution of the marine environment.

Participation with Prince Rupert, Seattle and Victoria Traffic is mandatory within Canadian and United States territorial waters. The CVTS Area of Operation is defined as 124°40W south along the Washington coast to 48°00N then west to 125°15W and north to 48°35'45"N. Inbound vessels are to check in with Prince Rupert Traffic on VHF Channel 74 (156.725 MHz) at either 48°00N or 125°15W prior to entering the traffic separation scheme. An information service such as a vessel's identity, destination, or other information obtained through the VTS reports and sensors, is available upon request outside of the VTS zone.

All communications with Seattle, Prince Rupert or Victoria Traffic must be made in clear, unbroken English. At least one person capable of conducting two-way radio communications using the English language must be present on the bridge at all times within the Co-operative VTS area. When language problems do arise, communications may be preceded by using message markers as found in the International Maritime Organisation Standard Marine Communication Phrases (SMCP).

3.6.1.1 Prince Rupert Traffic

West Coast Approaches to Juan de Fuca Strait.

Vessel Traffic Services from 124°40'00W in Juan de Fuca Strait westward to 125°15'00"W, and intersecting to the south to 48°00N from the west coast of Washington State are provided by the CCG from the Prince Rupert MCTS Centre located in Prince Rupert, B.C.

All communications with vessels in these areas will be conducted on VHF Ch74 (156.725 MHz).

3.6.1.2 Seattle Traffic

Juan de Fuca Strait

Vessel Traffic Services in the area containing all Canadian and United States waters from 124°40'00"W which intersects the Canadian and United States shorelines thence easterly through the Juan de Fuca Strait, including all waters south and east of a line from Church Point to Race Rocks light to the intersection of the Canada/United States International boundary to Hein Bank light and bell buoy to Cattle Point, and south of a line from Patos Island to Alden Bank lighted gong buoy "A" and north to the 49th parallel, including the United States Gulf Island waters are provided by the United States Coast Guard from the Puget Sound VTS Center located in Seattle, WA (Seattle Traffic).

All communications with vessels in these areas will be conducted on VHF Ch05A (156.250 MHz).

3.6.1.3 Victoria Traffic

Haro Strait and Approaches, Boundary Pass, South Portion Strait of Georgia

Vessel Traffic Services in the area containing all Canadian and United States waters north and east of a line from Church Point to Race Rocks light to the intersection of the Canada/United States International boundary to Hein Bank light and bell buoy to Cattle Point including all of Haro Strait, Boundary Passage and the southern portion of the Strait of Georgia are provided by the Canadian Coast Guard from the Victoria MCTS Centre located at Patricia Bay, B.C. (Victoria Traffic).

All communications with vessels in these areas will be conducted on VHF Ch11 (156.55 MHz).

3.6.2 *Western Canada – Turn Point Special Operating Area*

The Turn Point Special Operating Area (SOA) has been established to enhance order and predictability, the efficient and safe movement of goods and services, and to further reduce the risk of accidents with respect to vessels transiting the boundary waters of Haro Strait and Boundary Passage in the vicinity of Turn Point on Stuart Island, Washington.

The Turn Point SOA consists of those Canadian and United States waters contained within a four (4) sided area connected by the following coordinates:

48°41.324N 123°14.245W (Turn Point Light, LL255/US 19790);
48°42.400N 123°13.967W;
48°41.087N 123°17.631W (Arachne Reef Light, LL254.3);
48°39.732N 123°16.438W (Tom Point Light, LL225).

3.6.2.1 Application

These procedures apply to all Canadian and United States VTS participant vessels within or approaching the Turn Point SOA from Boundary Passage, southbound for Haro Strait; and from Haro Strait, northbound for Boundary Passage or Swanson Channel, however, they do not apply to vessels southbound out of Swanson Channel.

3.6.2.2 Movement Procedures

a) A VTS participant, if towing astern, do so with as short a hawser as safety and good seamanship permits.

b) A VTS participant of 100 metres or more in length (LOA) will make best efforts consistent with safety and industry practices:

   i) not to enter the Turn Point SOA when another VTS participant of 100 metres or more in length is already located within the SOA, unless;

      - when following astern a minimum .5NM (5 cables) separation is maintained with the vessel ahead,
      - when overtaking in the SOA with the concurrence of Victoria MCTS that there is no opposing traffic and a CPA of at least .5NM (5 cables) is maintained,
      - if outbound from Boundary Pass and meeting an inbound vessel from Haro Strait already in the SOA, enter only after the outbound vessel is past the vector heading of the inbound vessel engaged in the turn and maintain at least a .5NM (5 cables) CPA,
      - if inbound from Haro Strait and meeting an outbound vessel from Boundary Pass already in the SOA, enter only after the outbound vessel has crossed a bearing line between Turn Point and Arachne Reef and maintain at least a .5NM (5 cables) CPA;

ii) maintain a distance off of Turn Point of at least .3 NM (3 cables).

All VTS participants approaching the Turn Point SOA are expected to make safe passing arrangements with other VTS participants at either Monarch Head or Blunden Islet southbound; and Lime Kiln Light (LL222/US19695) or Kellett Bluff Light (LL229/US19720) northbound. These arrangements should be made no later than reaching CIP 6 at Gowlland Point (LL253/US19800) southbound and approximately abeam Danger Shoal Light and Horn Buoy (US19775) northbound.

3.6.3 *Western Arctic – Mackenzie River Marine Safety Advisory Procedures*

For the purpose of enhancing navigation safety on the Mackenzie River, danger areas have been designated and reporting procedures established for vessels in these areas.

The following *Marine Safety Advisory Procedures* on the Mackenzie River should be followed by all vessels on the river, and they should report to Iqaluit MCTS before entering, whilst proceeding through, and on leaving the danger zones (1-10) on the river listed below:

a) Wrigley Harbour to Horn River
    i) Downbound traffic reports in at Mile 0 and out at Mile 65.
    ii) Upbound traffic reports in at Mile 65 and out at Mile 0.

b) Head of the Line to Fort Simpson
    i) Downbound traffic reports in at Mile 130 and reports out at Mile 205.
    ii) Upbound traffic reports in at Mile 205 and out at Mile 130.

c) Camsell Bend to Jones Landing
    i) Downbound traffic reports in at Mile 282 and out at Mile 325.
    ii) Upbound traffic reports in at Mile 325 and out at Mile 282.

d) Blackwater River to Old Fort Point
    i) Downbound traffic reports in at Mile 400 and out at Mile 480.
    ii) Upbound traffic reports in at Mile 480 and out at Mile 400.

e) Sans Sault Rapids
    i) Downbound traffic reports in at Mile 620 and out at Mile 645.
    ii) Upbound traffic reports in at Mile 645 and out at Mile 620.

f) Ramparts Rapids
    i) Downbound traffic reports in at Mile 667 and out at Mile 680.
    ii) Upbound traffic reports in at Mile 680 and out at Mile 667.

g) Oniak Channel

  i) Traffic reports in when entering the Oniak Channel from the following channels: Middle Channel, Luker Channel and East Channel.

  ii) Traffic reports out when leaving the Oniak Channel to the following channels: Middle Channel, Luker Channel and East Channel.

h) East Channel – Inuvik to Tununuk

  i) Downbound traffic reports when leaving Inuvik and out when either entering Oniak Channel or at Mile 1040.

  ii) Upbound traffic for Inuvik reports in at Mile 1040 or when entering from the Oniak Channel and reports arrival at Inuvik.

i) East Channel – Kittigazuit

  i) Downbound traffic reports in at Mile 1070 and out at the fairway buoy at Mile 1081.

  ii) Upbound traffic reports in at the fairway buoy at Mile 1081 and out at Mile 1070.

j) Vessels should also report to Iqaluit MCTS before entering and upon leaving the following restricted channels in the Mackenzie Delta:

Restricted Channels	**Restricted Channels**
Aklavik Channel	Peel River
Arctic Red River	Phillips Channel
Husky Channel	Schooner Channel
Napoiak Channel	Tiktalik Channel
Neklek Channel	Tuktoyaktuk Entrance Channel
Peel Channel	

Mariners should also report in and out of any other restricted channels in the Delta at their own discretion.

All vessels should maintain a continuous radio watch on the Western Arctic Emergency and Calling Frequency, 5803 kHz (SSB), from the time that they reach the first reporting point previous to entering a danger area until the time that they report clear of the danger area.

If contact cannot be made with the Iqaluit MCTS Centre on 5803 kHz, VHF Ch 16 (156.8 MHz) may be used where available either directly or through another ship, for possible relay to the Iqaluit MCTS Centre.

The Safety Advisory calls should consist of the following information:

a) name of towing vessel and number of barges in the tow and whether riding high or low;

b) direction of voyage i.e. northbound, southbound, etc.;

c) danger zone;

d) mileage;

e) time; and

f) remarks.

EXAMPLE:

Iqaluit Coast Guard Radio this is Kitikmeot, southbound with 6 barges riding high, entering Area 6 at Mile 680, 1030 Local estimating Mile 660 at 1530 local, have you any traffic?

3.6.3.1 Contact/Delivery of Safety Advisory

If contact cannot be made with Iqaluit MCTS Centre, either directly or through another ship, the vessel shall broadcast her position to advise any vessels in the area.

Iqaluit MCTS Centre

Telephone:	867-979-0310
Facsimile:	867-979-4264
Telex (Telefax):	063-15529
Telegraphic Identifier:	NORDREG CDA
Email:	Iqamck01@innav.gc.ca

3.7 ZONE APPLICATION

3.7.1 *Offshore Systems*

3.7.1.1 Eastern Canada Vessel Traffic Services Zone (ECAREG)

With respect to the Eastern Canada VTS zone, the *Eastern Canada Vessel Traffic Services Zone Regulations* apply in respect of:

a) every ship of 500 tons gross tonnage or more;

b) every ship that is engaged in towing or pushing a vessel, where the combined tonnage of the ship and the vessel being towed or pushed is 500 tons gross tonnage or more; or

c) every ship carrying a pollutant or dangerous goods, or engaged in towing or pushing a vessel carrying a pollutant or dangerous goods as prescribed in the;

   i) *International Maritime Dangerous Goods (IMDG) Code*, and

   ii) *Vessel Pollution and Dangerous Chemicals Regulations*.

Participation is mandatory.

3.7.1.2 Western Canada (VTS Offshore)

With respect to the Western Canada VTS zones, the *Vessel Traffic Services Zones Regulations* require a report to be made at least 24 hours before the ship enters a VTS zone from seaward including Alaska, or as soon as possible where the estimated time of arrival at that VTS zone is less than 24 hours after the ship departs from the last port of call, where the ship is:

a) of 500 tons gross tonnage or more;

b) engaged in towing or pushing a vessel, where the combined tonnage of the ship and the vessel being towed or pushed is 500 tons gross tonnage or more; or

c) carrying a pollutant or dangerous goods, or engaged in towing or pushing a vessel carrying a pollutant or dangerous goods as prescribed in the;

   i) *International Maritime Dangerous Goods (IMDG) Code*, and

   ii) *Vessel Pollution and Dangerous Chemicals Regulations*.

Participation is mandatory.

3.7.1.3 Northern Canada Vessel Traffic Services Zone (NORDREG)

With respect to the Northern Canada VTS zone (NORDREG), the *Northern Canada Vessel Traffic Services Zone Regulations* apply to the following classes of vessels:

a) vessels of 300 tons gross tonnage or more;

b) vessels that are engaged in towing or pushing another vessel, if the combined gross tonnage of the vessel and the vessel being towed or pushed is 500 tons gross tonnage or more; and

c) vessels that are carrying as cargo, a pollutant or dangerous goods, or that are engaged in towing or pushing a vessel that is carrying as cargo a pollutant or dangerous goods.

Participation is mandatory.

3.8 ADVANCE REPORTING REQUIREMENTS

3.8.1 *VTS Offshore Zone Report*

The VTS Offshore report shall be communicated directly to Prince Rupert MCTS Centre or to the nearest CCG MCTS Centre.

Dependent upon the reporting requirement, various elements of the following may be required to be reported.

a) the name of the ship;

b) the radio call sign of the ship;

c) the name of the master of the ship;

d) the position of the ship;

e) the time (UTC) the ship arrived at the position;

f) the course of the ship, if any;

g) the speed of the ship, if any;

h) the prevailing weather conditions (including ice if applicable);

i) the estimated time (UTC) that the ship will enter the VTS Zone;

j) the name of the VTS zone the ship intends to enter;

k) the destination of the ship;

l) the estimated time (UTC) of arrival of the ship at the destination;

m) the intended route of the ship;

n) the name of the last port of call of the ship;

o) the draught of the ship;

p) any dangerous goods, listed by class, or pollutant, that is carried on board the ship or a vessel being towed or pushed by the ship;

q) any defect in the ship's hull, main propulsion systems or steering systems, radars, compasses, radio equipment, anchors or cables;

r) any discharge, or threat of discharge, of a pollutant from the ship into the water, and any damage to the ship that may result in the discharge of a pollutant from the ship into the water;

s) the name of the Canadian or United States agent of the ship; and

t) the date of expiration of the following certificate:

    i) the certificate referred to in Article VII of the *International Convention on Civil Liability for Oil Pollution Damage, 1969/1992*;

ii) the International Oil Pollution Prevention;

iii) the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk;

iv) the Certificate of Fitness and the Certificate of Compliance, if any issued to the ship.

The following is also requested:

i) the date and expiration of the ISM Safety Management Certificate:

ii) the ISM document of compliance; and

iii) the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 Certificate (known as Bunkers Convention Certificate), if any, issued to the ship.

3.8.1.1 VTS Offshore Report Delivery

Send the VTS Offshore Report to one of the following:

Email: vts.rupert@innav.gc.ca
Telephone: 250-627-3071

Or via a Canadian Coast Guard MCTS Centre, free of charge.

3.8.2 *ECAREG Zone Report*

ECAREG zone reports shall be communicated directly to ECAREG or to the nearest CCG MCTS Centre. All times given in ECAREG zone reports shall be Coordinated Universal Time (UTC).

Dependent upon the reporting requirement, various elements of the following may be required to be reported.

a) the name of the ship;

b) the radio call sign of the ship;

c) the name of the master of the ship;

d) the position of the ship;

e) the time (UTC) the ship arrived at the position;

f) the course of the ship, if any;

g) the speed of the ship, if any;

h) the prevailing weather conditions (including ice if applicable);

i) the estimated time (UTC) that the ship will enter the Eastern Canada VTS Zone;

j) the estimated time that the ship will depart the berth;

k) the destination of the ship;

l) the estimated time (UTC) of arrival of the ship at the destination;

m) the route the ship intends to take through the Eastern Canada VTS zone to arrive at the destination;

n) the name of the last port of call of the ship;

o) the draught of the ship;

p) any dangerous goods, listed by class, or pollutant, that is carried on board the ship or a vessel being towed or pushed by the ship;

q) revoked;

r) any defect in the ship's hull, main propulsion systems or steering systems, radars, compasses, radio equipment, anchors or cables;

s) any discharge, or threat of discharge, of a pollutant from the ship into the water, and any damage to the ship that may result in the discharge of a pollutant from the ship into the water;

t) the name of the Canadian or United States agent of the ship; and

u) the date of expiration of the following certificate:

   i) the certificate referred to in Article VII of the *International Convention on Civil Liability for Oil Pollution Damage, 1969/1992*;

   ii) the International Oil Pollution Prevention;

   iii) the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk;

   iv) the Certificate of Fitness and the Certificate of Compliance, if any issued to the ship.

The following is also requested:

   i) the date and expiration of the ISM Safety Management Certificate:

   ii) the ISM document of compliance; and

   iii) the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 Certificate (known as Bunkers Convention Certificate), if any, issued to the ship.

3.8.2.1 Prior to Entering the Zone

A report containing all the required information listed, except item j), shall be made 24 hours prior to entering the zone, or as soon as practical where the estimated time of arrival of the ship at the zone is less than 24 hours after the time the ship departed for the last port of call.

This report is not required where:

a) the ship is on a voyage between two ports within the zone; and

b) the ship is entering the zone directly from the Northern Canada Vessel Traffic Service zone, and is in possession of a valid NORDREG Clearance.

3.8.2.2 Entering at Zone Boundary

A report containing the required information listed in a), b), d), h) and i), shall be made immediately before the ship crosses the zone boundary when entering the zone.

This report is not required when entering directly from a local VTS zone.

3.8.2.3 Arrival at Berth

A report containing the required information listed in a) and b), as well as the following information:

a) port of arrival; and

b) time of arrival;

shall be made on arrival of the ship at a berth.

3.8.2.4 Departing Berth

A report containing the required information, except item a), shall be made two hours before a ship departs a berth.

A traffic clearance to depart a berth is valid for one hour from the estimated time of departure. Where a traffic clearance to depart berth has expired because of a revised time of departure, a new traffic clearance is required. In this case, the report need only contain the ship's name, call-sign, position and revised time of departure.

This report is not required where the ship is proceeding to another berth in the same port.

3.8.2.5 Exiting the Zone

A report containing the required information listed in a), b), d) and h), shall be made immediately before the ship crosses the seaward boundary.

In a case where exiting a zone coincides with entering a local VTS zone, this report is not required. Procedures as local VTS zone reporting requirements shall be followed.

3.8.2.6 ECAREG Reports Delivery

ECAREG reports shall be sent to:

Halifax MCTS Centre
Telephone: 902-426-4956
Facsimile: 902-426-4483
Email: HLXECAREG1@INNAV.GC.CA

Les Escoumins MCTS Centre
Telephone: 418-233-3483
Facsimile: 418-233-3299
Email: ECAREG.ESCOUMINS@INNAV.GC.CA

3.8.3 *NORDREG Zone Reports*

NORDREG reports shall be addressed to NORDREG CANADA and communicated either directly to NORDREG CANADA or to the nearest CCG MCTS Centre. All times indicated in NORDREG reports shall be in Coordinated Universal Time (UTC). The master of a ship shall ensure that these reports are made in accordance with the stated requirements.

The waters of Kugmallit Bay and MacKenzie Bay are considered part of the Northern Canada Vessel Traffic Services (NORDREG) zone. A final report must be submitted to NORDREG CANADA by vessels southbound in Kugmallit Bay to MacKenzie River at mile 1081, which is marked by Kittigauzit Bay Lt By LL 1816 Mo(A) 69 24'N 133 38'W. Vessels northbound from the MacKenzie River to Tuktoyatuk or the Beaufort Sea or northbound from Shallow Bay must submit a sailing plan report to NORDREG CANADA.

The information requested from the ships is derived from the standard reporting format shown in International Maritime Organization resolution A.851(20) – *General Principles for Ship Reporting Systems and Ship Reporting Requirements, Including Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants*.

Every report shall begin with the term "NORDREG" (system identifier) and be followed by whichever of the following two letters corresponds to the report:

a) "SP", in the case of a sailing plan report;
b) "PR", in the case of a position report;
c) "FR", in the case of a final report;
d) "DR", in the case of a deviation report.

The report must include the applicable designators followed by the information required in accordance with the Table 3-1 - NORDREG Zone Report: Designators and Information Required

3.8.3.1 Content, Time and Geographical Position for Submitting Reports

Vessels shall send a report as follows, and provide the information required in accordance with the Table 3-1 that corresponds to the designators specified.

3.8.3.2 When the Vessel is About to Enter the NORDREG Zone

A sailing plan report (SP) shall be provided when the vessel is about to enter the NORDREG zone and must include the following designators: A, B, C or D, E, F, G, H, I, L, O, P, Q, S, T, W, and X.

Note: Designators O, Q, T are not required when entering directly from the ECAREG zone.

Vessels about to enter the NORDREG zone should provide the sailing plan report 24 hours in advance of entering the zone, or as soon as possible after leaving a port that is less than 24 hours from the NORDREG zone. This ensures vessels are not delayed in obtaining a clearance from MCTS and enables MCTS to assess current conditions and prepare relevant safety information for the vessel.[3]

3.8.3.3 Departing a Berth/Anchorage

A sailing plan report (SP) shall be provided more than one hour but not more than two hours before a vessel departs from a berth within the NORDREG zone, unless the vessel is moving to another berth in the same port. The sailing plan report must include the following designators: A, B, C or D, H, I, L, O, P, Q, S, T, W, and X.

Note: Designators O, P, Q, S, T, W, X are not required if the corresponding information has not changed since the previous sailing plan report.

3.8.3.4 Getting Underway After an Accident

A sailing plan report (SP) shall be provided immediately before a vessels gets underway within the NORDREG zone if the vessel; has been stranded, has stopped as a result of a breakdown in the main propulsion systems or steering systems, or has been involved in a collision. The sailing plan report must include the following designators: A, B, either C or D, I, L, O, P, Q, S, T, W and X.

Note: Designators O, P, Q, S, T, W, X are not required if the corresponding information has not changed since the previous sailing plan report.

3.8.3.5 Entering a Zone Boundary

A position report (PR) shall be provided immediately after a vessel enters the NORDREG zone and must include the following designators: A, B, C or D, E, F, and S.

3.8.3.6 Daily

A position report (PR) shall be provided daily at 16:00 UTC, unless the vessel is transmitting LRIT information. The position report shall include the following designators: A, B, C or D, E, F, and S.

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[3] Vessels must obtain a clearance from MCTS before entering the NORDREG zone.

3.8.3.7 Other Situations

A position report (PR) shall be provided with designators A, B, C or D, E, F, S and X as soon as feasible after a vessel's master becomes aware of any of the following:

a) another vessel in apparent difficulty;
b) any obstruction to navigation;
c) any aid to navigation that is not functioning properly or is damaged, out of position or missing;
d) any ice or weather conditions that are hazardous to safe navigation; and
e) a pollutant in the water.

3.8.3.8 Arrival at Berth/Anchorage

A final report (FR) shall be provided on the arrival of a vessel at a berth within the NORDREG zone and include the following designators: A and K.

3.8.3.9 Exiting the Zone

A final report (FR) shall be provided immediately before a vessel exits the NORDREG zone and include the following designators: A and K

3.8.3.10 Deviation Report

A deviation report (DR) shall be provided when a vessel's position varies significantly from the position that was expected based on the sailing plan report, or when a vessel's intended voyage changes from the sailing plan report. The deviation report must include the following designators: A, B, either C or D and the other designators included in the sailing plan report if the corresponding information has changed since that report.

Table 3-1 - NORDREG Zone Report: Designators and Information Required

Designator	Subject	Information
A	Vessel	The vessel's name, the name of the state whose flag the vessel is entitled to fly and, if applicable, the vessel's call sign, International Maritime Organization ship identification number and Maritime Mobile Service Identity (MMSI) number.
B	Date and time	Date and time corresponding to the vessel's position under designator C or D given in Coordinated Universal Time (UTC). A 6-digit group followed by a Z, the first 2 digits giving the day of the month, the next two digits giving the hour and the last two digits giving the minutes.
C	Vessel's position by latitude and longitude	A 4-digit group giving latitude in degrees and minutes suffixed with N and a 5-digit group giving longitude in degrees and minutes suffixed with W.
or D	Vessel's position by geographical name of place.	If the vessel is at a known place, the name of the place. If the vessel is not at a known place, the name of a known place followed by the vessel's true bearing (3-digits) and distance in nautical miles from the place.
E	Vessel's course	True course. A 3-digit group.
F	Vessel's speed	Speed in knots. A 2-digit group.
G	The vessel's last port of call	The name of the port of call.

Designator	Subject	Information
H	Vessel's entry into the NORDREG zone or departure from a berth within the NORDREG zone.	Estimated date and time the vessel will enter the NORDREG zone or depart the berth within the NORDREG zone, as appropriate. Date and time expressed as under designator B and entry or departure position expressed as under designator C or D.
I	Vessel's destination and expected time of arrival	The name of the destination followed by expected time of arrival, expressed as under designator B.
K	Vessel's exit from the NORDREG zone or arrival at the vessel's destination	Date and time vessel exits the NORDREG zone or arrives at its berth within the NORDREG zone. Exit date and time expressed as under designator B and exit or arrival position expressed as under designator C or D.
L	Vessel's intended route.	A brief description of the intended route through the NORDREG zone.
O	Vessel's maximum present static draught	A 4-digit group giving metres and centimetres.
P	Cargo.	A brief description of the vessel's cargo and the cargo of any vessel being towed or pushed. The description must include: a) in the case of a dangerous good, the class and quantity; and b) in the case of a pollutant, the technical name and quantity.
Q	Defects, damage and deficiencies, as well as circumstances adversely affecting the vessel's normal navigation.	Brief details of any defects, damage or deficiencies of the vessel or its machinery, equipment or charts and nautical publications, or circumstances that adversely affect normal navigation.
S	Weather and ice.	A brief description of the prevailing weather and ice conditions.
T	Vessel's authorized representative, agent or owner.	The name and contact information of: a) in the case of a Canadian vessel, its authorized representative; b) in the case of a foreign vessel, its Canadian or American agent or owner; c) in the case of a pleasure craft that is not a Canadian vessel, the pleasure craft's owner.
W	Persons on board the vessel.	The number of persons.

Designator	Subject	Information
X	Additional information for sailing plan report. Information to be reported in a position report in certain situations.	a) In the case of a sailing plan report the following information: i) the total amount of oil on board that is for use as fuel or carried as cargo, expressed in cubic metres; ii) if the vessel's owner or master holds an arctic pollution prevention certificate in respect of the vessel; the certificate's expiry date and the name of its issuing authority; iii) the vessel's ice class, if applicable, and the name of the classification society that assigned the ice class; iv) if the vessel is getting underway after having been stranded, stopped as a result of a breakdown in the main propulsion or steering system or involved in a collision; a brief description of the applicable incident. b) In the case of a position report required after becoming aware of: another vessel in difficulty; any obstruction to navigation; an aid to navigation that is not functioning properly or is damaged, out of position or missing; any ice or weather conditions that are hazardous to safe navigation and a pollutant in the water - then a brief description of the applicable matter.

3.8.3.11 NORDREG Report Delivery

NORDREG reports shall be sent to:

Iqaluit MCTS Centre
Telephone: 867-979-5724
Facsimile: 867-979-4264
Telex (Telefax): 063-15529
Telegraphic Identifier: NORDREG CDA
Email: IQANORDREG@INNAV.GC.CA

Operational from approximately mid-May to late December

Prescott MCTS Centre
Telephone: 613-925-4471
Facsimile: 613-925-4519
Email: IQANORDREG@INNAV.GC.CA

Operational from approximately late December to mid-May

3.8.4 *Pre-Arrival Information Report (PAIR)*

The Canadian *Marine Transportation Security Regulations* (MTSR) requires a Pre-Arrival Information Report (PAIR) to be filed prior to entry into Canadian waters. Message format and contact information are found in Part 4.

3.8.5 *West Coast – USA Notice of Arrival*

A 96-hour Notice of Arrival (NOA) must be filed in accordance with the 33 *Code of Federal Regulations* (CFR) Part 160 (dated February 28, 2003) directly to the United States Coast Guard National Vessel Movement Center (NVMC) via one of the following methods:

Email:	sans@nvmc.uscg.gov
Telephone:	1-800-708-9823
Facsimile:	1-800-547-8724

The electronic Notice of Arrival/Departure (e-NOA/D) can be found at the NVMC website: http://www.nvmc.uscg.gov/NVMC/default.aspx .

Figure 3-1 - Vessel Traffic Services - Atlantic Coast

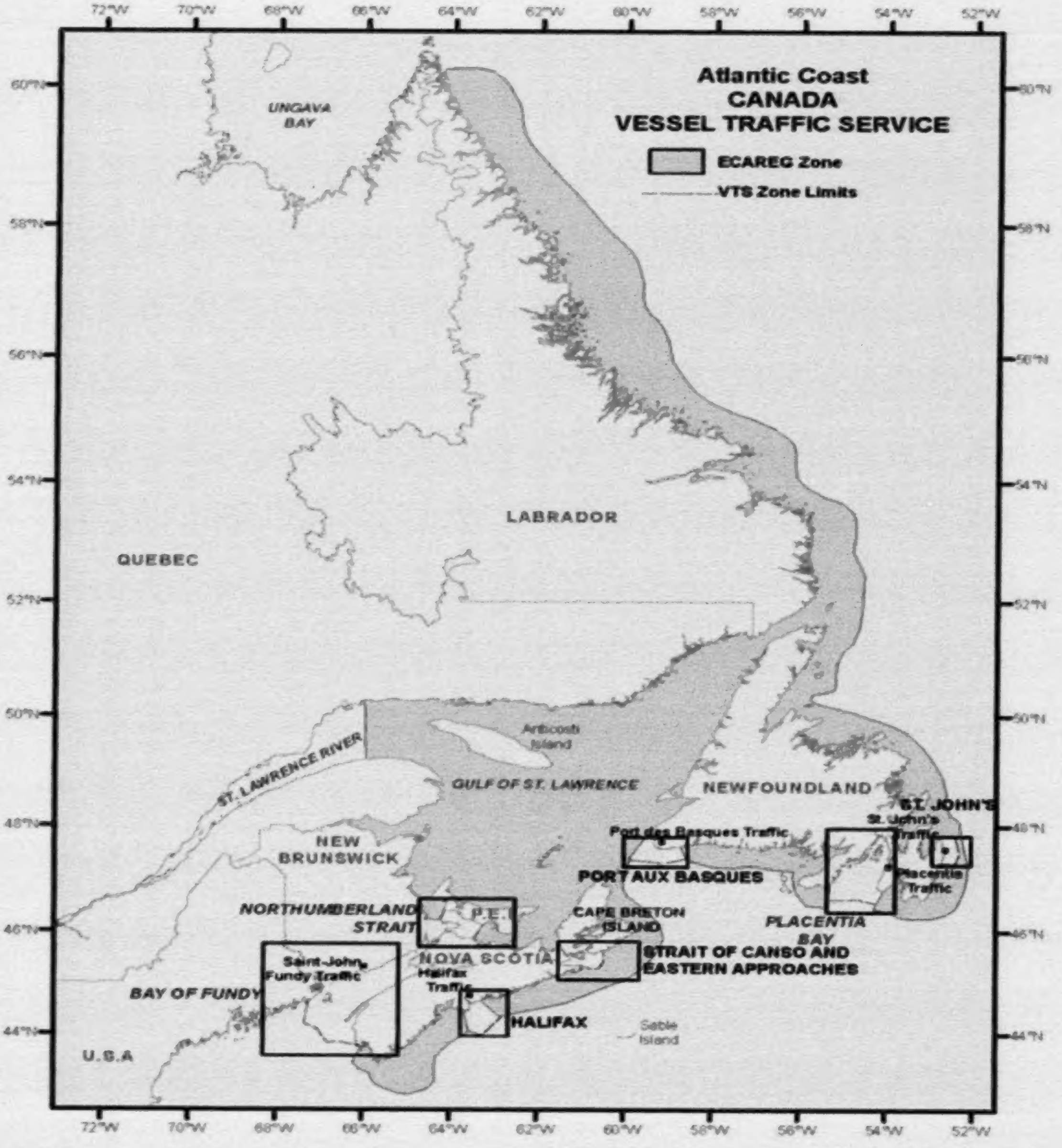

Atlantic Coast
CANADA
VESSEL TRAFFIC SERVICE
ECAREG Zone
VTS Zone Limits
72°W
70°W
68°W
66°W
64°W
62°W
60°W
58°W
56°W
54°W
52°W
60°N
58°N
56°N
54°N
52°N
50°N
48°N
46°N
44°N
UNGAVA BAY
LABRADOR
QUEBEC
Anticosti Island
ST. LAWRENCE RIVER
GULF OF ST. LAWRENCE
NEWFOUNDLAND
ST. JOHN'S
St. John's Traffic
Placentia Traffic
PLACENTIA BAY
Port des Basques Traffic
PORT AUX BASQUES
NEW BRUNSWICK
NORTHUMBERLAND STRAIT
P.E.I.
CAPE BRETON ISLAND
STRAIT OF CANSO AND EASTERN APPROACHES
NOVA SCOTIA
Halifax Traffic
HALIFAX
Sable Island
Saint-John Fundy Traffic
BAY OF FUNDY
U.S.A

Figure 3-2 - Vessel Traffic Services - Northern Canada (NORDREG) Zone

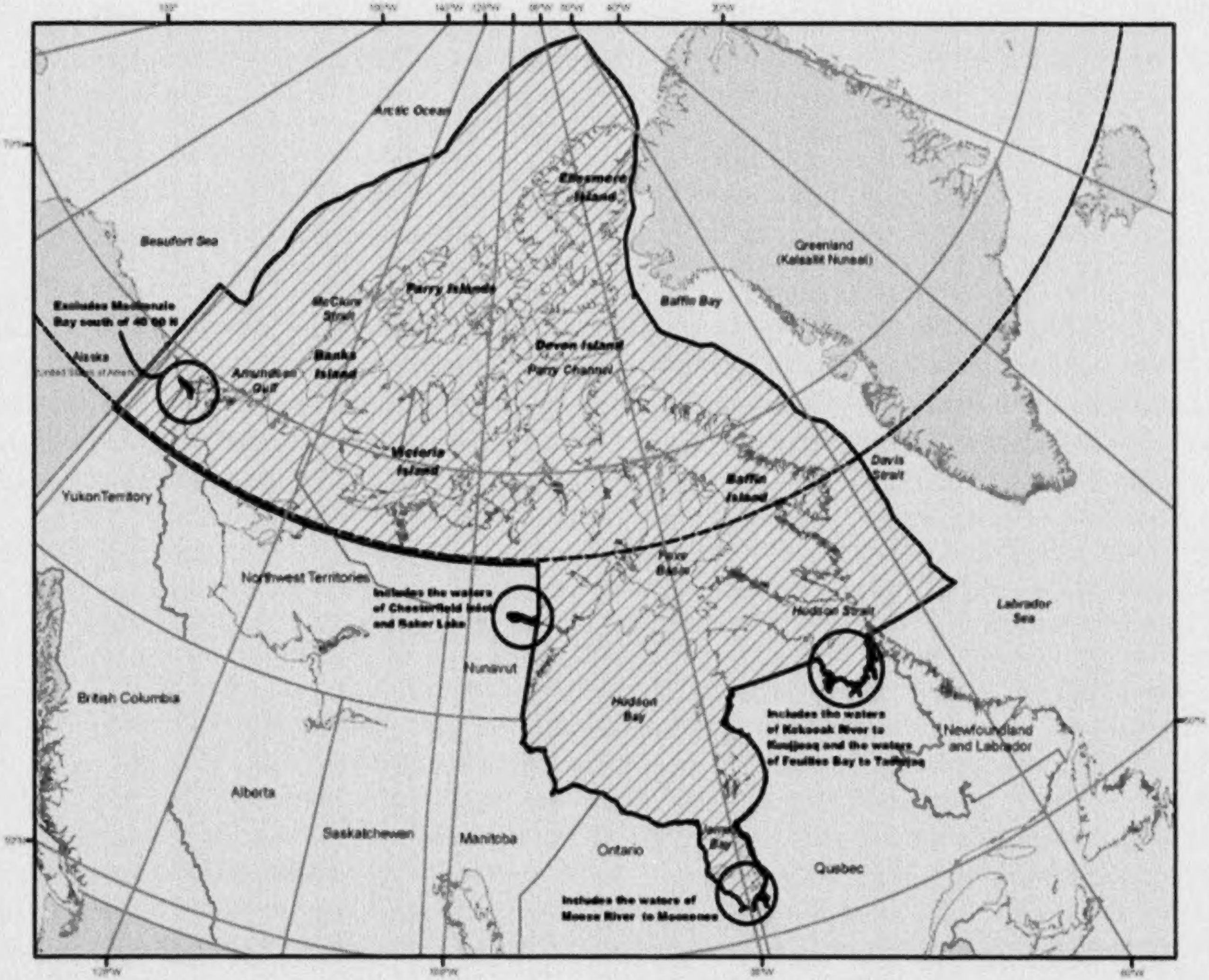
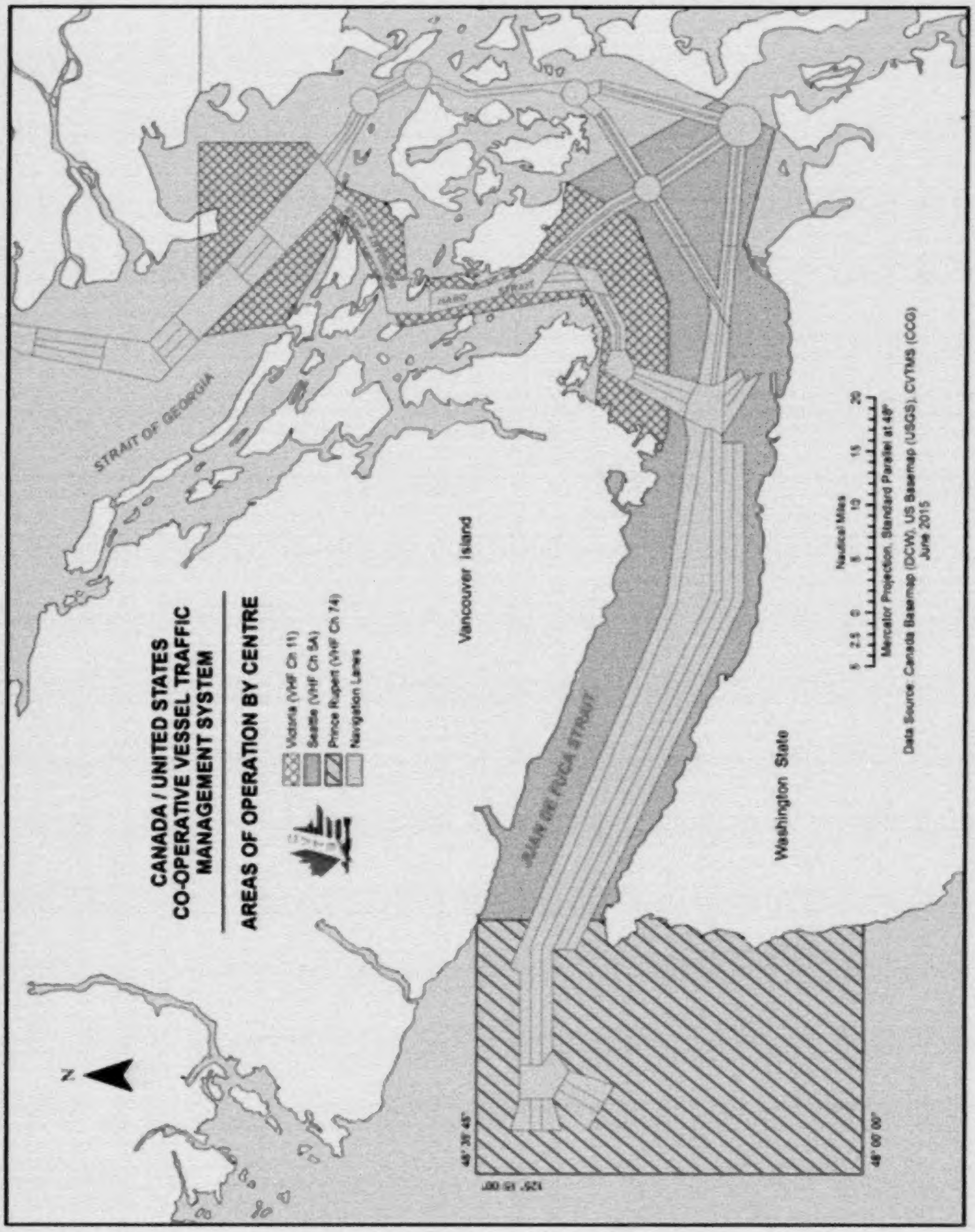

Arctic Ocean
Beaufort Sea
Greenland
(Kalaallit Nunaat)
Ellesmere Island
Baffin Bay
Parry Islands
McClure Strait
Devon Island
Parry Channel
Banks Island
Amundsen Gulf
Excludes Mackenzie Bay south of 40 00 N
Alaska
United States of America
Victoria Island
Baffin Island
Davis Strait
Yukon Territory
Foxe Basin
Northwest Territories
Includes the waters of Chesterfield Inlet and Baker Lake
Hudson Strait
Labrador Sea
Nunavut
Hudson Bay
Includes the waters of Koksoak River to Kuujjuaq and the waters of Feuilles Bay to Tasiujaq
Newfoundland and Labrador
British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
James Bay
Quebec
Includes the waters of Moose River to Moosonee

Figure 3-3 - Canada/United States Co-operative Vessel Traffic Management System


CANADA / UNITED STATES
CO-OPERATIVE VESSEL TRAFFIC
MANAGEMENT SYSTEM
AREAS OF OPERATION BY CENTRE
Victoria (VHF Ch 11)
Seattle (VHF Ch 5A)
Prince Rupert (VHF Ch 74)
Navigation Lanes
STRAIT OF GEORGIA
HARO STRAIT
Vancouver Island
JUAN DE FUCA STRAIT
Washington State
N
48° 35' 45"
48° 00' 00"
125° 15' 00"
Nautical Miles
5 2.5 0 5 10 15 20
Mercator Projection, Standard Parallel at 49°
Data Source: Canada Basemap (DCW), US Basemap (USGS), CVTMS (CCG)
June 2015

3.9 VESSEL TRAFFIC SERVICES ZONE SCHEDULES

3.9.1 *Bay of Fundy*

Note: Latitude and longitude positions given for the Bay of Fundy Vessel Traffic Services Zone are in NAD 83.

The Bay of Fundy Vessel Traffic Services zone comprises all Canadian waters contained within the area bounded by a line drawn in a 270° True direction from Chebogue Point in position 43°43'54.3"N, 066°07'08.0"W; thence through the following positions:

43°43'54.3"N 066°26'28"W, 43°58'45.3"N 066°27'43"W, 44°09'30.3"N 066°47'01"W, 44°11'50.3"N 066°49'31"W, 44°14'57.3"N 066°52'40"W, 44°17'21.2"N 066°55'08"W, 44°22'30.2"N 067°18'58.1"W, 44°29'50.2"N 067°15'08.1"W, 44°35'30.2"N 067°08'13"W, 44°42'00.2"N 066°58'22"W, 44°46'35.6"N 066°54'09.2"W thence along the Canada/USA boundary line to the shore at 45°11'30.5"N 067°17'00.6"W; thence following the Canadian shores of New Brunswick and Nova Scotia back to the beginning at Chebogue Point, including Fishing Zone 2.

Table 3-2 - Sectors and Boundaries for the Bay of Fundy

Sector	Boundaries
1	The outer limit of the zone, and a line joining the following positions: 45°03'29.2"N 066°27'32.8"W, 44°53'14.6"N 066°36'00.1"W, 44°43'08.8"N 066°44'16.6"W, 44°36'38"N 065°56'28.7"W.
2	From the inner boundary of sector 1 eastward to a line joining 45°19'22.5"N 065°32'05.4"W; and 44°56'54.3"N 065°15'49.4"W, and including the waters of Saint John Harbour northward to a line joining Pleasant Point, 45°16'28.7"N 066°05'47.1"W; and Pokiok, 45°16'38.3"N 066°05'34.5"W.
3	All of the waters encompassed by the shores of New Brunswick and Nova Scotia east of a line joining 45°19'22.5"N 065°32'05.4"W; and 44°56'54.3"N 065°15'49.4"W; which is described as the eastern limit of sector 2.

Table 3-3 - Identification and Frequencies for the Bay of Fundy

Sector	Identifier	Channel	Frequencies (MHz)
1	"Fundy Traffic"	14	156.7
2	"Fundy Traffic"	12	156.6
3	"Fundy Traffic"	71	156.575

Note: Fundy Traffic monitors navigation in the traffic zone using radar and Automatic Identification System (AIS).

Table 3-4 - Calling-In-Points for the Bay of Fundy

Number	Sector	Name	General Description and Conditions	Geographic Description
1A	1		Southwest entrance to traffic separation scheme Inward.	A point at 44°10'40.3"N 066°48'16"W.
1B	1		Southwest exit from traffic separation scheme Outward.	A point at 44°16'09.3"N 066°53'54"W.
2A	1		Inward traffic only.	A point at 44°19'11.4"N 066°34'12.4"W.
2B	1		Outward traffic only.	A point at 44°23'16.9"N 066°39'28"W.

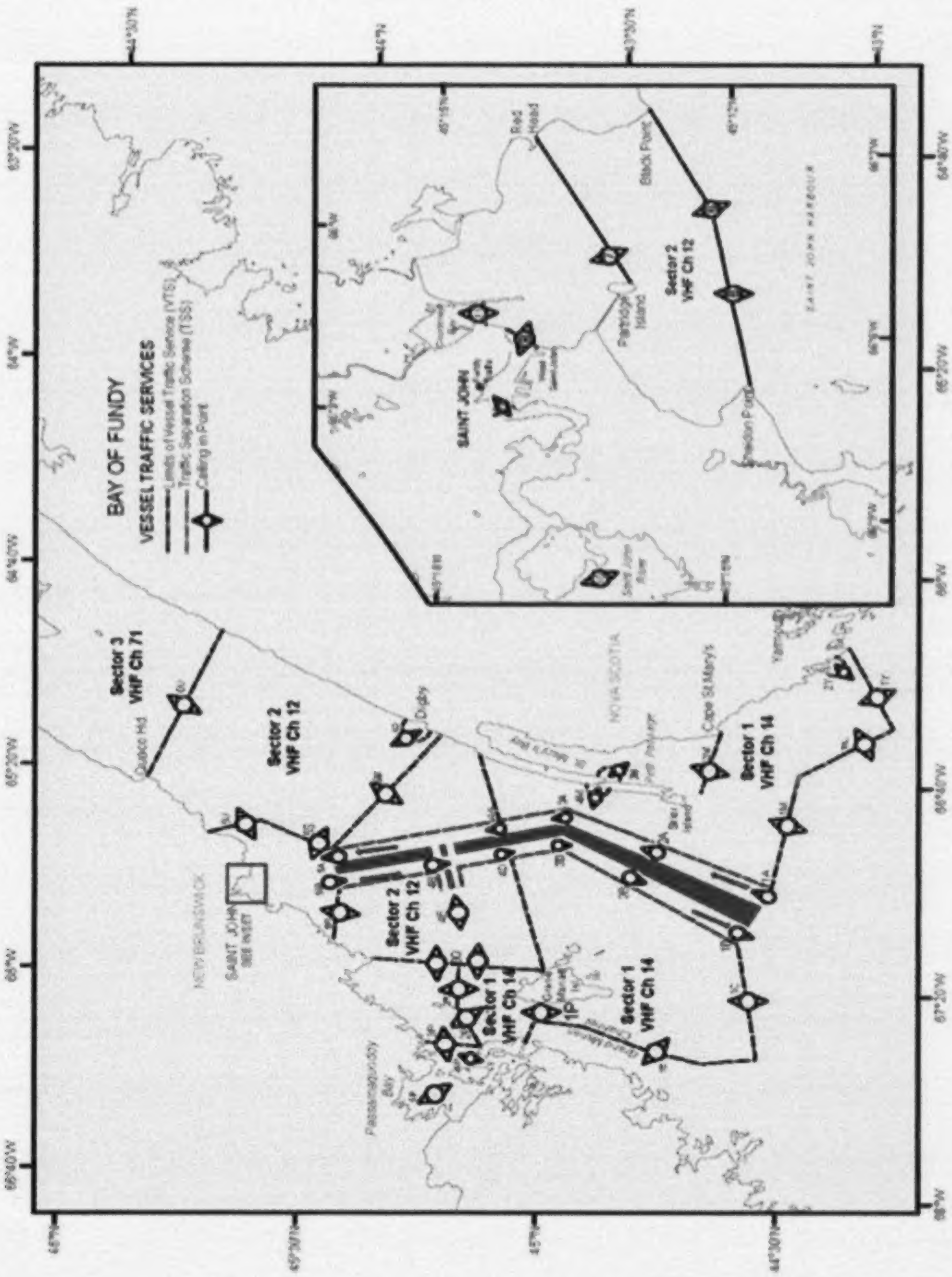
Number	Sector	Name	General Description and Conditions	Geographic Description
3A	1		Inward traffic only.	A point at 44°30'09.3"N 066°15'56.5"W.
3B	1		Outward traffic only.	A point at 44°32'25.8"N 066°20'46"W.
4A	1 and 2		Sector boundary – Inward traffic only.	A point at 44°38'53.3"N 066°12'43.9"W.
4B	2		Outward traffic only.	A point at 44°50'17.8"N 066°14'19.5"W.
4C	2		Inward traffic only.	A point at 44°44'49.1"N 066°10'32.7"W.
4D	1 and 2		Sector boundary – Outward traffic only.	A point at 44°39'38.1"N 066°18'11.2"W.
4E	2		Entrance to/exit from traffic separation scheme.	A point at 44°49'38.3"N 066°23'40.2"W.
5A	2		North exit from traffic separation scheme – Inward traffic only.	A point at 45°01'45.3"N 066°04'08.4"W.
5B	2		North entrance to traffic separation scheme – Outward traffic only.	A point at 45°02'45.3"N 066°09'35.4"W.
6	2	Saint John Harbour light and whistle Buoy J		A line joining: 45°13'30.4"N 066°05'45.1"W; 45°12'55.3"N 066°02'36.9"W; 45°12'59.3"N 066°00'28.2"W.
7	2	Partridge Island		A line joining: 45°14'10.3"N 066°03'12.1"W and 45°14'20.3"N 066°00'07.9"W.
8	2			A point at 45°15'30.3"N 066°03'31.3"W.
9	2			A point at 45°16'10.9"N 066°04'24.9"W.
10	2			A point at 45°16'00.5"N 066°05'39.1"W.
11	2			A point at 45°15'51.5"N 066°02'37.6"W.
1C	1		Outer boundary – Sector 1	A line joining: 44°17'21.2"N 066°55'08"W and 44°22'30.2"N 067°18'58.1"W.
1E	1		Outer boundary – Sector 1 Grand Manan Channel	A line joining: 44°22'30.2"N 067°18'58.1"W; 44°29'50.2"N 067°15'08.1"W; 44°35'30.2"N 067°08'13"W; 44°42'00.2"N 066°58'22"W; 44°46'35.6"N 066°54'09.2"W; 44°47'39.1"N 066°53'07.5"W.
1P	1		Grand Manan Channel	A line joining: 44°45'35.7"N 066°50'01.9"W and 44°45'37"N 066°50'03"W, and thence along the boundary between Fishing zones 2 and 4 to 44°47'39.1"N 066°53'07.5"W; thence, along the Canada/US boundary to 44°49'31.8"N 066°55'57.3"W, and along the extension of this boundary to 44°50'16.8"N 066°57'05.2"W.
2P	1		Campobello Island to The Wolves	A line joining: 44°55'57.4"N 066°53'55.3"W and 44°56'09.8"N 066°44'04.3"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
2R	1		Southwest Wolf Island to sector boundary.	A line joining: 44°56’10.6"N 066°43’57.7"W and 44°53’14.6"N 066°36’00.1"W.
3Q	1 and 2		Sector Boundary.	A line joining: 44°43’08.8"N 066°44’16.6"W, 44°53’14.6"N 066°36’00.1"W, 45°03’29.2"N 066°27’32.8"W.
5R	2			A line joining: 45°03’00.3"N 066°10’58"W; 45°03’36.3"N 066°12’22"W; 45°07’06.7"N 066°20’50.8"W.
3P	1			A line joining: 45°02’19.6"N 066°48’31.1"W; 44°55’57.4"N 066°53’55.3"W.
4P	1		Head Harbour Passage	A line joining: 44°56’48.5"N 066°58’14"W; 44°55’40.6"N 066°56’37.4"W.
5P	1		Passamaquoddy Bay	A line joining: 45°04’17"N 066°55’12.6"W and a position on the Canada/US boundary line at 45°01’36.7"N 067°03’56.6"W.
1M	1		Outer boundary – Sector 1 southwest of Brier Island	A line joining: 43°58’45.3"N 066°27’43"W; 44°09’30.3"N 066°47’01"W.
2M	1		Entrance to St. Mary’s Bay	A line joining: 44°05’12"N 066°12’42.8"W; 44°12’08.3"N 066°23’09"W.
3M	1		South end of Petit Passage	An arc centered on 44°22’21"N 066°12’12"W; Radius 1½ NM, and extending from shore to shore in the waters of St. Mary’s Bay, connecting the following points: 44°23’31.3"N 066°10’53.6"W; 44°21’15.2"N 066°10’46.4"W; and 44°21’19.9"N 066°13’44.1"W.
4M	1		North end of Petit Passage	An arc centered on 44°24’14.5"N 066°12’55"W; Radius 1½ NM, and extending from shore to shore in the waters of the Bay of Fundy, connecting the following points: 44°23’02.8"N 066°14’10.8"W; 44°25’19.6"N 066°14’21.7"W; and 44°25’21.9"N 066°11’31.8"W.
6M	2			A line joining: 44°39’56.6"N 065°49’57.2"W and 45°01’30.3"N 066°02’46"W.
5U	2			A line joining: 45°08’02.3"N 065°50’56.9"W and 45°15’24.3"N 065°48’39.9"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
1D	2		Entrance/Exit to Digby Gut	An arc centered on 44°42'38.8"N 065°46'23.9"W; Radius 2 NM and extending from shore to shore in the waters of the Bay of Fundy, connecting the following points: 44°41'03.7"N 065°48'06.6"W; 44°44'00.3"N 065°48'27.5"W and 44°43'09.9"N 065°43'41.4"W.
5S	2			A line joining: 45°01'30.3"N 066°02'46"W and 45°08'02.3"N 065°50'56.9"W.
8U	2 and 3		Boundary – Sectors 2 / 3	A line joining: 45°19'22.5"N 065°32'05.4"W and 44°56'54.3"N 065°15'49.4"W.
1L	1		Outer boundary – Sector 1 west of Yarmouth, NS.	A line joining: 43°43'54.3"N 066°26'28"W and 43°58'45.3"N 066°27'43"W.
1Y	1		Outer boundary – Bay of Fundy VTS zone near Yarmouth, NS	A line joining: 43°43'54.3"N 066°07'08"W and 43°43'54.3"N 066°26'28"W.
2Y	1		Yarmouth Sound	An arc centered on 43°46'57.3"N 066°09'29.5"W; Radius 1½ NM, and extending from shore to shore in the waters off Yarmouth Sound, connecting the following points: 43°46'08.4"N 066°07'45.2"W; 43°46'29.7"N 066°11'27.7"W and 43°48'24.5"N 066°10'00.3"W.

All times shall be given in Atlantic Standard Time or Atlantic Daylight Saving Time, whichever is in effect.

Figure 3-4 - Vessel Traffic Services - Bay of Fundy


BAY OF FUNDY
VESSEL TRAFFIC SERVICES
Limits of Vessel Traffic Service (VTS)
Traffic Separation Scheme (TSS)
Calling in Point
Sector 3 VHF Ch 71
Sector 2 VHF Ch 12
Sector 1 VHF Ch 14
Quaco Hd
Digby
NOVA SCOTIA
NEW BRUNSWICK
SAINT JOHN SEE INSET
Cape St Mary's
Yarmouth
Passamaquoddy Bay
Grand Manan
SAINT JOHN
Partridge Island
Red Head
Black Point
Sector 2 VHF Ch 12
SAINT JOHN HARBOUR
Saint John River
Sheldon Point
45°30'N
45°N
44°30'N
44°N
43°30'N
43°N
66°40'W
66°W
65°20'W
64°40'W
64°W
63°20'W
67°20'W
66°40'W
66°W
65°20'W
64°40'W
68°W

3.9.2 *Halifax Harbour and Approaches*

Note: Latitude and longitude positions given for Halifax Harbour and Approaches Vessel Traffic Services zone are in NAD 83.

The Halifax Vessel Traffic Services zone comprises all Canadian waters contained within an area bounded by a line connecting points from Point Pennant, 44°25'53.8"N 063°38'56.5"W; to position 44°17'41.3"N 063°35'09.6"W; to the Canadian territorial boundary at 44°14'02"N 063°30'50.3"W; thence, along Canada's territorial boundary to a point at 44°22'43.5"N 063°13'48.5"W, and thence, along a line to Petpeswick (Collies) Head, 44°40'43.3"N 063°09'44.2"W.

Note: Halifax Traffic monitors navigation in the traffic zone using radar and Automatic Identification System (AIS).

Table 3-5 - Sectors and Boundaries for Halifax Harbour and Approaches

Sector	Boundaries
1	The seaward boundary of the zone, and a line connecting points from Hartlen Point, 44°35'20.5"N 063°27'05.8"W; to position 44°30'13.8"N 063°28'46.7"W; thence, to Duncan Reef light buoy, H1, 44°29'36"N 063°30'34"W, and thence, to the shore west of Duncan Reef, 44°29'36"N 063°31'28.1"W.
2	The inner boundary of sector 1 and the shoreline northward and westward of the inner boundary of sector 1.

Table 3-6 - Identification and Frequencies for Halifax Harbour and Approaches

Sector	Identifier	Channel	Frequency (MHz)
1	"Halifax Traffic"	14	156.7
2	"Halifax Traffic"	12	156.6

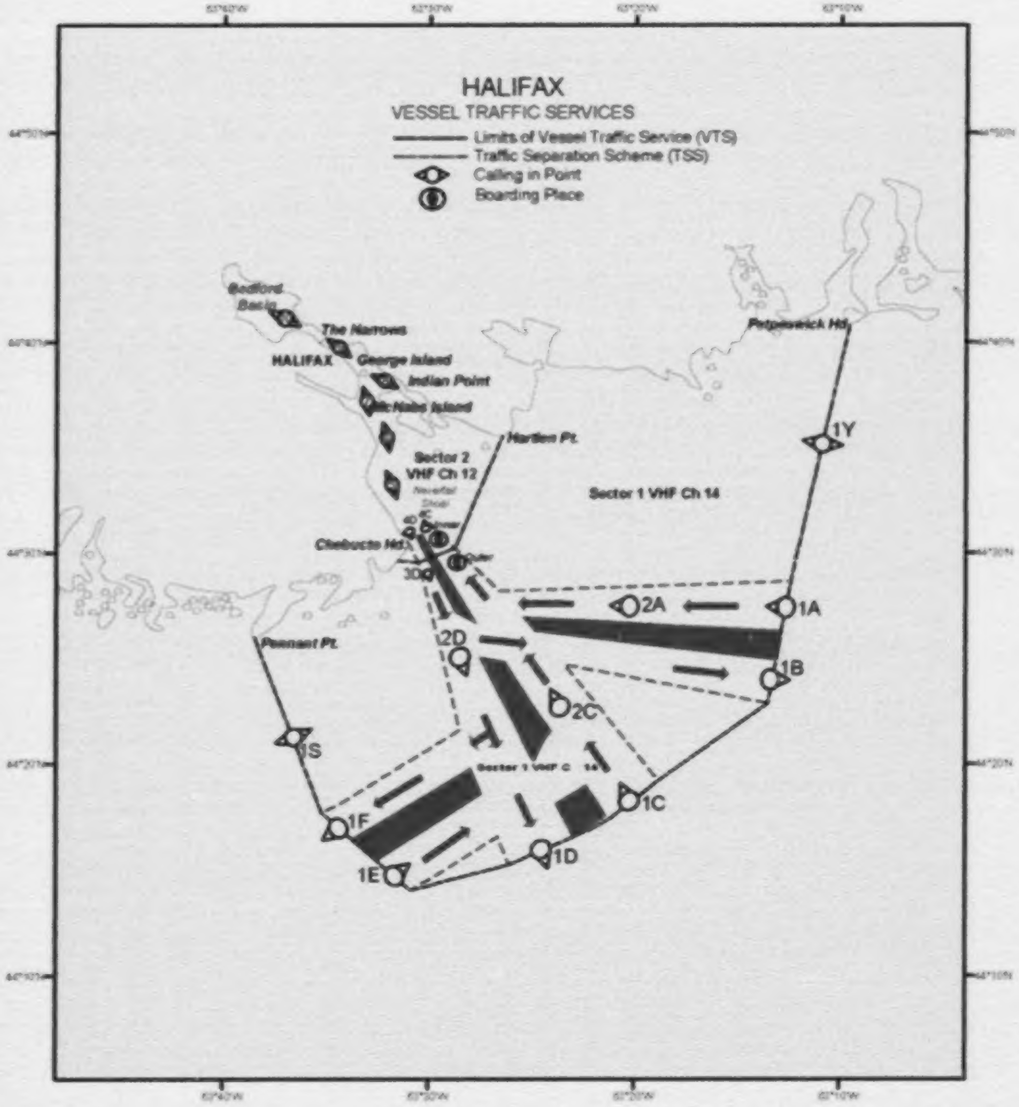
Table 3-7 - Calling-In-Points for Halifax Harbour and Approaches

Number	Sector	Name	General Description and Conditions	Geographic Description
1A	1		Boundary limit. Entrance to traffic lane.	A point at 44°27'35.6"N 063°12'42.6"W.
2A	1		Inward traffic only.	A point at 44°27'39.3"N 063°19'37.6"W.
1B	1		Boundary limit. Traffic lane exit.	A point at 44°23'42.7"N 063°13'35.2"W.
1C	1		Boundary limit. Entrance to traffic lane.	A point at 44°18'13.2"N 063°19'57.3"W.
2C	1		Inward traffic only.	A point at 44°22'44.6"N 063°23'21"W.
1D	1		Boundary limit. Traffic lane exit.	A point at 44°15'46.2"N 063°24'26.4"W.
2D	1		Outward traffic only.	A point at 44°24'14"N 063°28'09.1"W.
1E	1		Boundary limit. Entrance to traffic lane.	A point at 44°14'47.8"N 063°31'44.4"W.
1F	1		Boundary limit. Traffic lane exit.	A point at 44°17'07"N 063°34'29"W.
1S	1		Western limit zone.	A line joining: 44°25'53.8"N 063°38'56.5"W and 44°17'41.3"N 063°35'09.6"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
1Y	1		Eastern limit of zone.	A line joining: 44°40'43.3"N 063°09'44.2"W and 44°28'42.3"N 063°12'27.6"W.
3D	1		Outward traffic only.	A point at 44°28'12.6"N 063°29'45.9"W.
4C	2	Inner Automatic Inward	Vessels inward shall state whether passing east or west of Neverfail Shoal buoy.	A point at 44°31'31.9"N 063°30'31.6"W.
4D	2	Inner Automatic Outward	Vessels shall state course and ETA to 3D.	A point at 44°31'15.2"N 063°31'16.1"W.
5	2	Neverfail Shoal		A line joining points at: 44°34'47.8"N 063°27'34"W; 44°33'23.2"N 063°31'51.9"W and 44°32'59.3"N 063°33'04.6"W.
6	2	Maugher Beach light	Vessels outward shall state if passing east or west of Neverfail Shoal buoy.	A line joining: 44°36'07.7"N 063°32'02.5"W and 44°35'50.2"N 063°33'04.7"W.
7	2	Ives Knoll	Vessels inward shall state whether passing east or west of Georges Island.	A line joining light buoy "HT2", 44°37'50.2"N 063°32'44.7"W, 44°37'33.9"N 063°33'34.7"W.
8	2	Indian Point		A line joining: 44°37'37.9"N 063°31'48.8"W and 44°37'59.1"N 063°31'31.8"W.
9	2	Ferry Track	Vessels outward shall state whether passing east or west of Georges Island.	A line joining: 44°39'47.3"N 063°34'09.9"W and 44°39'23.7"N 063°34'38.4"W.
10	2	Bedford Basin		A line joining: 44°40'18.9"N 063°37'25.6"W and 44°41'22.6"N 063°36'58.3"W.

All times shall be given in Atlantic Standard Time or Atlantic Daylight Saving Time, whichever is in effect.

Figure 3-5 - Vessel Traffic Services - Halifax


63°40'W
63°30'W
63°20'W
63°10'W
44°50'N
44°40'N
44°30'N
44°20'N
44°10'N
HALIFAX
VESSEL TRAFFIC SERVICES
Limits of Vessel Traffic Service (VTS)
Traffic Separation Scheme (TSS)
Calling in Point
Boarding Place
Bedford Basin
The Narrows
HALIFAX
George Island
Indian Point
McNabs Island
Hartlen Pt.
Sector 2 VHF Ch 12
Neverfail Shoal
Sector 1 VHF Ch 14
Petpeswick Hd.
1Y
4D
4C
Inner
Chebucto Hd.
Outer
3D
2A
1A
2D
1B
2C
Pennant Pt.
1S
Sector 1 VHF Ch 14
1C
1F
1D
1E

3.9.3 *Northumberland Strait*

Note: Latitude and longitude positions given for the Northumberland Strait Vessel Traffic Services zone are in NAD 83.

Table 3-8 - Sector and Boundaries for Northumberland Strait

Sector	Boundaries
1	All waters of Northumberland Strait extending west from a line drawn between Cape Cliff, N.S., 45°52'42.3"N 063°27'59.3"W, to Rice Point, P.E.I., 46°07'47.9"N 063°13'18.3"W, to a line drawn between Fagan Point, N.B., 46°13'41.8"N 064°13'42"W, to Cape Egmont, P.E.I., 46°24'04.8"N 064°08'05.3"W.

Table 3-9 - Identification and Frequencies for Northumberland Strait

Sector	Identifier	Channel	Frequency (MHz)
1	"Northumberland Traffic"	12	156.6

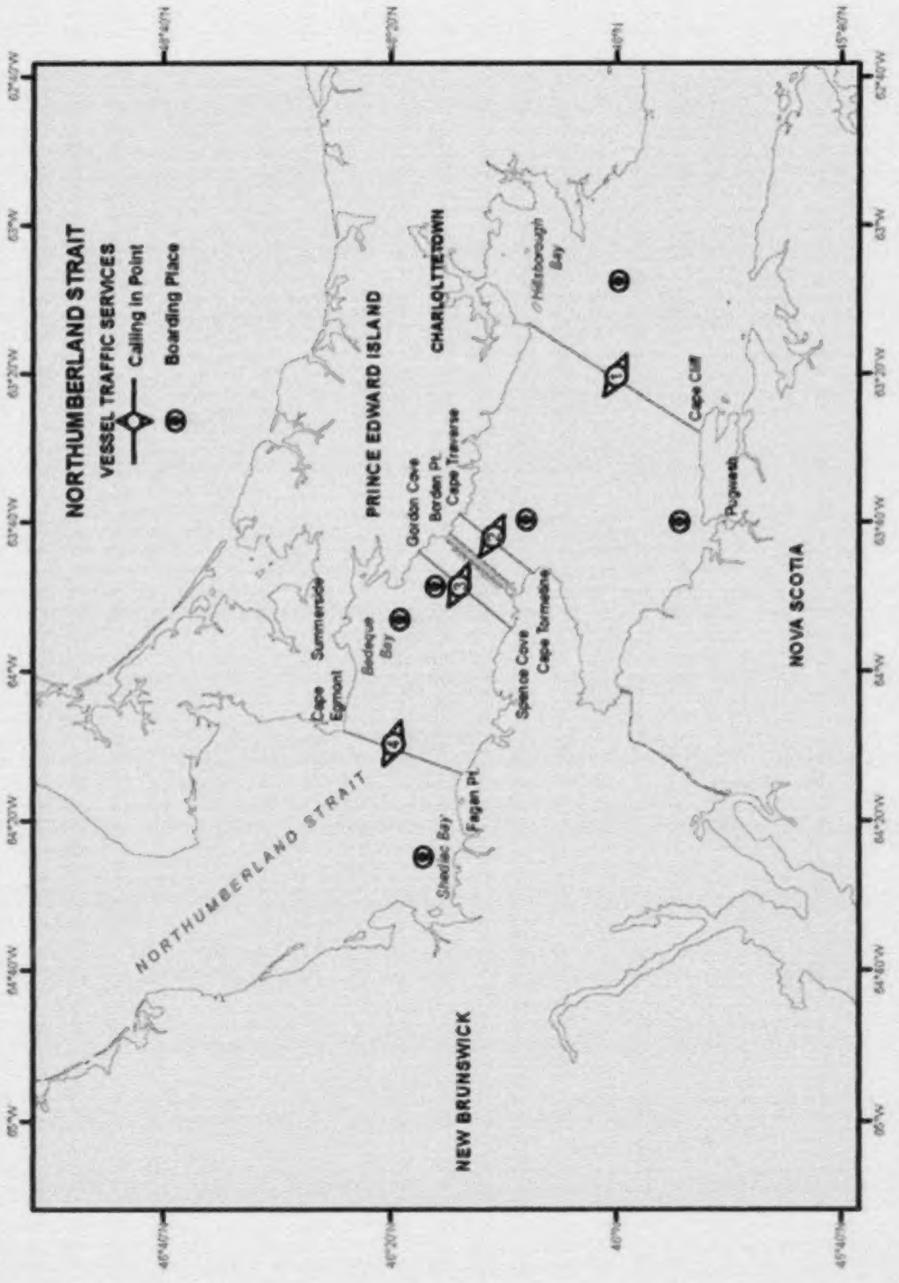
Table 3-10 - Calling-In-Points for Northumberland Strait

Number	Sector	Name	General Description and Conditions	Geographic Description
1	1	Eastern Zone Boundary	A line joining: Cape Cliff, N.S. and Rice Point, P.E.I.	A line joining: 45°52'42.3"N 063°27'59.3"W and 46°07'47.9"N 063°13'18.3"W.
2	1	Eastern Approach Security Zone	A line joining: Cape Tormentine, N.B. and Cape Traverse P.E.I.	A line joining: 46°07'24.6"N 063°46'56.5"W and 46°13'51.2"N 063°38'58"W.
3	1	Western Approach Security Zone	A line joining: Spence Cove, N.B. and Gordon Cove, P.E.I.	A line joining: 46°09'15.3"N 063°54'21.6"W and 46°17'34.1"N 063°43'53.1"W.
4	1	Western Zone Boundary	A line joining: Fagan Point, N.B. and Cape Egmont, P.E.I.	A line joining: 46°13'41.8"N 064°13'42"W and 46°24'04.8"N 064°08'05.3"W.

All times shall be given in Atlantic Standard Time or Atlantic Daylight Saving Time, whichever is in effect.

Note: Northumberland Traffic monitors navigation in the traffic zone using Automatic Identification System (AIS).

Figure 3-6 - Vessel Traffic Services - Northumberland Strait


NORTHUMBERLAND STRAIT
VESSEL TRAFFIC SERVICES
Calling in Point
Boarding Place
PRINCE EDWARD ISLAND
CHARLOTTETOWN
Hillsborough Bay
Cape Cliff
Pugwash
NOVA SCOTIA
Gordon Cove
Borden Pt.
Cape Traverse
Summerside
Bedeque Bay
Cape Egmont
Spence Cove
Cape Tormentine
Fagan Pt.
Shediac Bay
NORTHUMBERLAND STRAIT
NEW BRUNSWICK
1
2
3
4
46°40'N
46°20'N
46°N
45°40'N
62°40'W
63°W
63°20'W
63°40'W
64°W
64°20'W
64°40'W
65°W

3.9.4 *Placentia Bay*

Placentia Bay Vessel Traffic Services zone comprises all Canadian waters between a line bearing 180° True from Bass Point, 46°55'05"N 055°15'55"W; and a line bearing 180° True from Cape St. Mary's light, 46°49'22"N 054°11'49"W.

Table 3-11 - Sectors and Boundaries for Placentia Bay

Sector	Boundaries
1	The seaward limit of the zone and a line drawn in a 101° - 281° True direction through position 47°08'05"N 054°30'00"W, and extended to the shore.
2	The inner limit of sector 1, and the shoreline north of the zone.

Table 3-12 - Identification and Frequencies for Placentia Bay

Sector	Identifier	Channel	Frequency (MHz)
1	"Placentia Traffic"	14	156.7
2	"Placentia Traffic"	12	156.6

Table 3-13 - Calling-In-Points for Placentia Bay

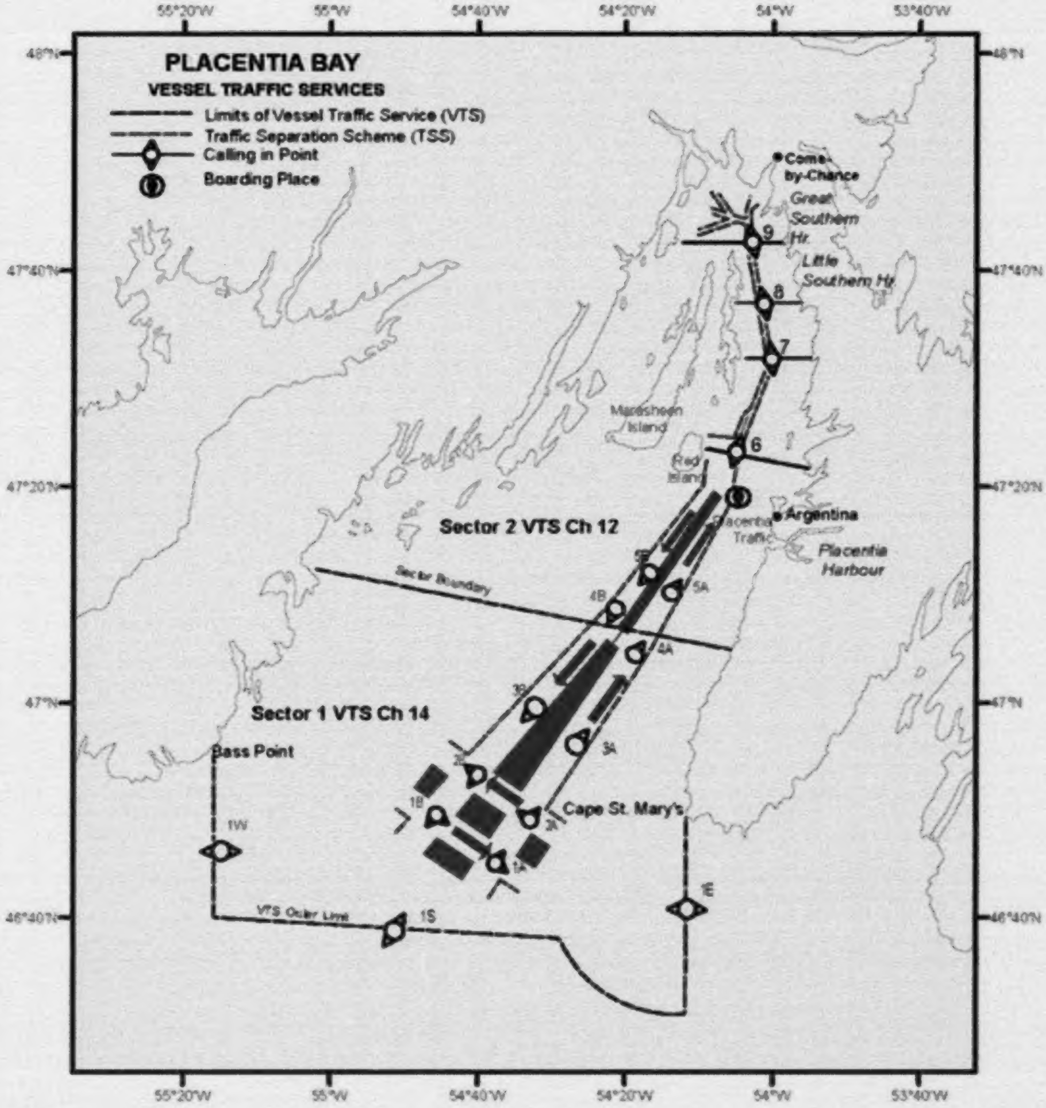
Number	Sector	Name	General Description and Conditions	Geographic Description
1W	1			A line bearing 180° True from Bass Point, 46°55'05"N 055°15'55"W, to the limit of Canadian waters.
1S	1			A line following the Canadian Territorial Sea boundary from position 46°39'55"N 055°15'55"W, to position 46°31'02"N 054°11'49"W.
1E	1			A line bearing 180° True from Cape St. Mary's light, 46°49'22"N 054°11'49"W, to the limit of Canadian waters.
1A	1		Inbound	A point at 46°45'25"N 054°37'44"W.
2A	1		Inbound	A point at 46°49'46"N 054°33'30"W.
3A	1		Inbound	A point at 46°57'52"N 054°25'41"W.
4A	2		Inbound	A point at 47°03'21.1"N 054°20'17.9"W.
5A	2		Inbound	A point at 47°12'22"N 054°12'08"W.
1B	1		Outbound	A point at 46°49'18"N 054°46'15"W.
2B	1		Outbound	A point at 46°53'20"N 054°40'56"W.
3B	1		Outbound	A point at 47°00'44"N 054°31'18"W.
4B	1		Outbound	A point at 47°08'07"N 054°21'38"W.
5B	2		Outbound	A point at 47°13'54"N 054°15'24"W.
6	2			A line 101° - 281° True through 47°23'01"N 054°05'13"W and extended to the shore.
7	2			A line 090° - 270° True through 47°31'55"N 054°00'32"W and extended to the shore.

Number	Sector	Name	General Description and Conditions	Geographic Description
8	2			A line 090° - 270° True through 47°37'01"N 054°01'53"W and extended to the shore.
9	2			A line 090° - 270° True through 47°42'35"N 054°03'22"W and extended to the shore

All times shall be in Newfoundland Standard Time or Newfoundland Daylight Saving Time, whichever is in effect.

Note: Placentia Traffic monitors navigation in the traffic zone using radar and Automatic Identification System (AIS).

Figure 3-7 - Vessel Traffic Services - Placentia Bay


55°20'W
55°W
54°40'W
54°20'W
54°W
53°40'W
48°N
47°40'N
47°20'N
47°N
46°40'N
PLACENTIA BAY
VESSEL TRAFFIC SERVICES
Limits of Vessel Traffic Service (VTS)
Traffic Separation Scheme (TSS)
Calling in Point
Boarding Place
Come-by-Chance
Great Southern Hr.
Little Southern Hr
9
8
7
Merasheen Island
6
Red Island
Argentina
Placentia Traffic
Placentia Harbour
Sector 2 VTS Ch 12
Sector Boundary
5B
5A
4B
4A
3B
3A
Sector 1 VTS Ch 14
Bass Point
2B
2A
1B
1A
Cape St. Mary's
1W
1E
VTS Outer Limit
1S

3.9.5 *Port aux Basques*

Port aux Basques Vessel Traffic Services zone comprises all Canadian waters adjacent to the west and southwest coasts of Newfoundland between a line bearing 232° True from Cape Ray Light, 47°37'17.1"N 059°18'16.8"W and a line bearing 180° True from Rose Blanche Pt. Light, 47°35'57"N 058°41'30"W.

Note: Latitude and longitude positions given for the Port aux Basques Vessel Traffic Services zone are in NAD 83.

Table 3-14 - Sectors and Boundaries for Port aux Basques

Sector	Boundaries
1	From Cape Ray, at 47°37'04"N 059°18'05"W, along the boundary between Fishing zones 1 and 4, to position 47°29'56"N 059°32'20.4"W; thence along an arc centered on position 47°43'07"N 059°05'59.7"W, and connecting the following points: 47°28'18.1"N 059°30'21.7"W, 47°26'48.2"N 059°28'10"W, 47°25'27.1"N 059°25'46.3"W, 47°24'15.6"N 059°23'12.1"W, 47°23'14.4"N 059°20'28.6"W, 47°22'24"N 059°17'37.4"W, thence, along the Canadian Territorial Sea boundary to position 47°23'37.3"N 058°42'01.9"W; thence 000° True to Rose Blanche Point Light, at 47°36'06.5"N 058°41'40.4"W.

Note: Port aux Basques Traffic monitors navigation in the traffic zone using radar and Automatic Identification System (AIS).

Table 3-15 - Identification and Frequencies for Port aux Basques

Sector	Identifier	Channel	Frequency (MHz)
1	"Port aux Basques Traffic"	11	156.55

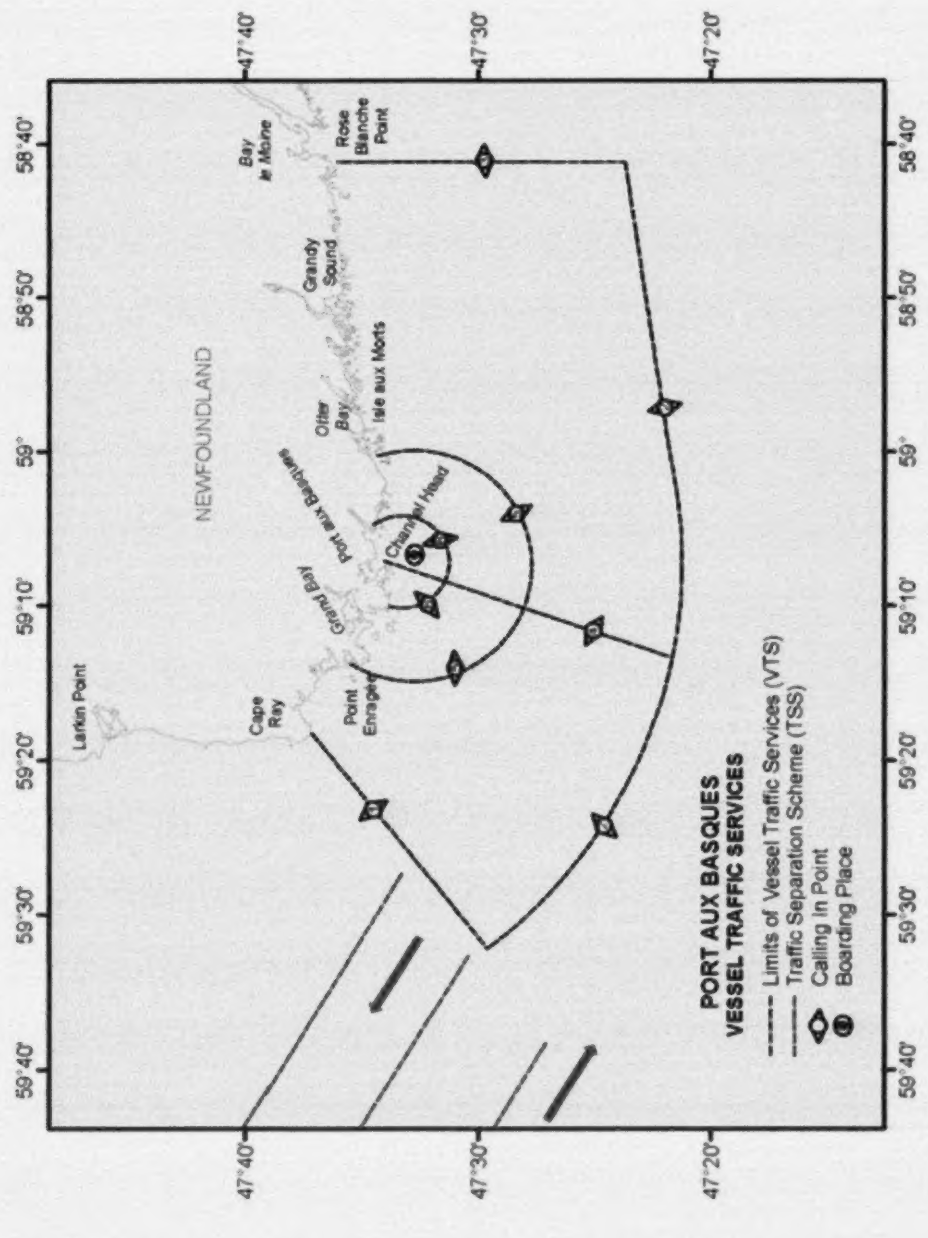
Table 3-16 - Calling-In-Points for Port aux Basques

Number	Sector	Name	General Description and Conditions	Geographic Description
1	1	Cape Ray	Off Cape Ray	From Cape Ray, at 47°37'04"N 059°18'05"W, along the boundary between Fishing zones 1 and 4, to position 47°29'56"N 059°32'20.4"W.
2	1	Southern limit	Crossing the southern zone limit	An arc, centred on position 47°43'07"N 059°05'59.7"W, and connecting the following points: 47°29'56"N 059°32'20.4"W, 47°28'18.1"N 059°30'21.7"W, 47°26'48.2"N 059°28'10"W, 47°25'27.1"N 059°25'46.3"W, 47°24'15.6"N 059°23'12.1"W, 47°23'14.4"N 059°20'28.6"W, 47°22'24"N 059°17'37.4"W; - thence, along the Canadian Territorial Sea boundary to position 47°23'37.3"N 058°42'01.9"W.
3	1	Rose Blanche	Off Rose Blanche Point	A line bearing 180° True from Rose Blanche Point, at position 47°36'06.5"N 058°41'40.4"W, to the limit of Canadian waters at 47°23'37.3"N 058°42'01.9"W.
4	1	Ferry Track	Crossing the Port aux Basques, NL, North Sydney, NS, recommended ferry track	A line from position 47°33'00"N 059°07'27.4"W, to the southern limit of the zone at position 47°22'09"N 059°16'26.6"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
5	1	5 NM off Channel Head	5 NM off Channel Head	An arc centered on 47°33'57"N 059°07'24.5"W, Radius 5 NM, and extending from shore to shore, connecting the following points: 47°35'09.7"N 059°00'14.4"W and 47°28'57"N 059°07'24.5"W and 47°36'02.8"N 059°14'07"W.
6	1	2 NM off Channel Head	2 NM off Channel Head	An arc centered on 47°33'57"N 059°07'24.5"W, Radius 2 NM, and extending from shore to shore, connecting the following points: 47°34'27"N 059°04'32.8"W, 47°31'57"N 059°07'24.5"W and 47°34'12.2"N 059°10'20.4"W.

All times shall be given in Newfoundland Standard Time or Newfoundland Daylight Saving Time, whichever is in effect.

Figure 3-8 - Vessel Traffic Services - Port aux Basques


PORT AUX BASQUES
VESSEL TRAFFIC SERVICES
Limits of Vessel Traffic Services (VTS)
Traffic Separation Scheme (TSS)
Calling In Point
Boarding Place
NEWFOUNDLAND
Larkin Point
Cape Ray
Point Enragee
Grand Bay
Port aux Basques
Channel Head
Otter Bay
Isle aux Morts
Grandy Sound
Bay le Moine
Rose Blanche Point
47°40'
47°30'
47°20'
58°40'
58°50'
59°
59°10'
59°20'
59°30'
59°40'

3.9.6 *St. John's*

St. John's Vessel Traffic Services zone comprises all Canadian waters between a line bearing 090° True from Cape St. Francis Light, 47°48'32"N 052°47'09.6"W, and a line bearing 090° True from Bull Head Light 47°18'39"N 052°44'52"W, including the Port of St. John's.

Note: Latitude and longitude positions given for the St. John's Vessel Traffic Services zone are in NAD 83.

Table 3-17 - Sector and Boundaries for St. John's

Sector	Boundaries
1	A line from Cape St. Francis, 47°48'31.5"N 052°47'09.6"W easterly to the Territorial Sea boundary at position 47°48'29.5"N 052°25'30.1"W; thence along the Territorial Sea boundary to position 47°18'36.3"N 052°25'14.8"W, thence, westerly to North Head, 47°18'38"N 052°44'46"W.

Table 3-18 - Identification and Frequencies for St. John's

Sector	Identifier	Channel	Frequency (MHz)
1	"St. John's Traffic"	11	156.55

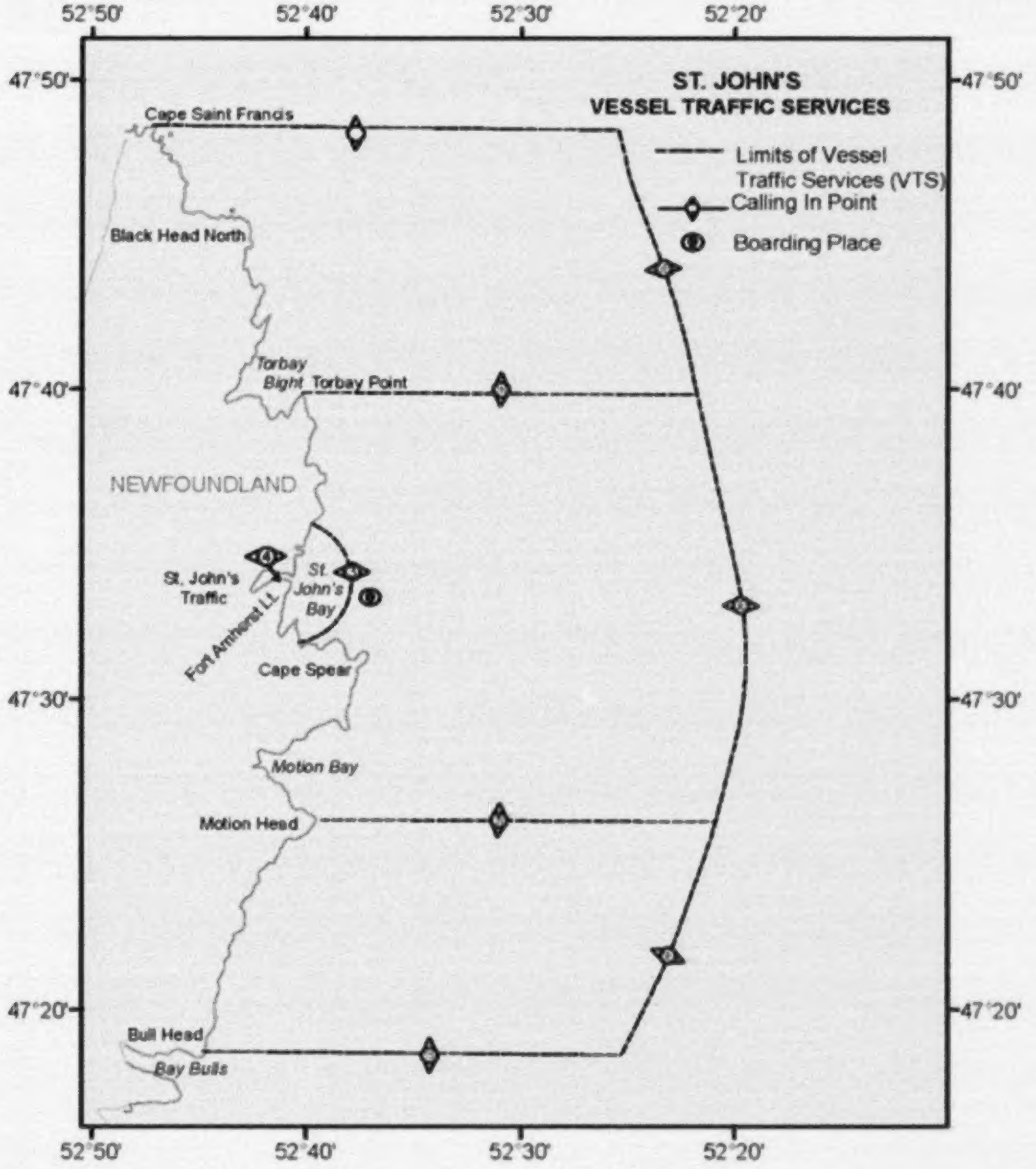
Table 3-19 - Calling-In-Points for St. John's

Number	Sector	Name	Geographic Description
1N	1	Cape St-Francis	A line from 47°48'31.5"N 052°47'09.6"W, to the limit of Canadian territorial waters at 47°48'29.5"N 052°25'30.1"W.
1E	1	Eastern Zone Limit	A line following the Canadian Territorial Sea Boundary from 47°48'29.5"N 052°25'30.1"W, to 47°18'36.3"N 052°25'14.8"W.
1S	1	North Head	A line from 47°18'38"N 052°44'46"W, to the limit of Canadian territorial waters at 47°18'36.3"N 052°25'14.8"W.
2N	1	Torbay Point	A line from 47°39'56.2"N 052°40'05"W, to the limit of Canadian territorial waters at 47°39'54.8"N 052°21'46.3"W.
2S	1	Motion Head	A line from 47°26'11"N 052°39'33.2"W, to the limit of Canadian territorial waters at 47°26'09.5"N 052°20'50.9"W.
3	1	2 NM off St. John's	An arc centred on Fort Amherst light, 47°33'47.9"N 052°40'49.6"W, and connecting points at 47°35'39.8"N 052°39'45.2"W; 47°33'35.4"N 052°37'53.2"W; and 47°31'49.5"N 052°40'20.3"W.
4	1	Fort Amherst	A point on the range line at 47°33'56.2"N 052°40'48.2"W, abeam Fort Amherst light at 47°33'47.9"N 052°40'49.6"W.

All times shall be given in Newfoundland Standard Time or Newfoundland Daylight Saving Time, whichever is in effect.

Note: St. John's Traffic monitors navigation in the traffic zone using Automatic Identification System (AIS).

Figure 3-9 - Vessel Traffic Services - St. John's


ST. JOHN'S
VESSEL TRAFFIC SERVICES
Limits of Vessel Traffic Services (VTS)
Calling In Point
Boarding Place
52°50'
52°40'
52°30'
52°20'
47°50'
47°40'
47°30'
47°20'
Cape Saint Francis
Black Head North
Torbay Bight
Torbay Point
NEWFOUNDLAND
St. John's Traffic
St. John's Bay
Fort Amherst LL
Cape Spear
Motion Bay
Motion Head
Bull Head
Bay Bulls

3.9.7 *St. Lawrence Waterway*

The St. Lawrence Waterway Vessel Traffic Services zone comprises the waters of the St. Lawrence River extending upstream from the meridian of longitude 066°00'00 West to the upper limits of Montréal Harbour including the Saguenay River and other tributary rivers where vessels enter or leave the St. Lawrence River between the above limits, but excluding that portion of the St. Lawrence Seaway from St. Lambert lock to a position 650 metres downstream from the section of Jacques-Cartier bridge spanning the Seaway.

Table 3-20 - Sectors and Boundaries for St. Lawrence Waterway

Sector	Boundaries
1	The longitudinal meridian crossing the St. Lawrence River at 066°00'00"W, and a line at Pointe de Manicouagan joining positions 49°06'04.3"N 068°11'39.7"W; 48°42'00"N 067°52'00"W (NAD 83).
2	The inner boundary of sector 1 and a line at Cap du Basque joining positions 48°00'06"N 069°45'48"W, 47°58'25"N 069°37'51"W, and 47°52'35"N 069°33'02"W; including the Saguenay River (NAD 83).
3	The inner boundary of sector 2 and a line at Pointe St-Nicholas joining positions 46°42'07"N 071°26'47"W; and 46°43'38"N 071°27'33"W.
4	The inner boundary of sector 3 and a line at Tracy joining positions 46°00'48"N 073°09'49"W and 46°01'00"N 073°11'00"W.
5	The inner boundary of sector 4 the upstream limit of the zone.

Table 3-21 - Identification and Frequencies for St. Lawrence Waterway

Sector	Identifier	Channel	Frequency (MHz)
1	"Escoumins Traffic"	14	156.7
2	"Escoumins Traffic"	9	156.45
3	"Québec Traffic"	12	156.6
4	"Québec Traffic"	13	156.65
5	"Québec Traffic"	10	156.5

Table 3-22 - Calling-In-Points for St. Lawrence Waterway

Number	Sector	Name	General Description and Conditions	Geographic Description
1	1	66W	Zone limit	Meridian longitude 066°00'00"W.
1A	1	66W	Eastern zone limit inbound	A point at 50°05'30"N 066°00'00"W.
1B	1	66W	Eastern zone limit outbound	A point at 50°01'25"N 066°00'00"W.
1C	1	66W	Eastern zone limit inbound	A point at 49°59'20"N 066°00'00"W.
1D	1	66W	Eastern zone limit outbound	A point at 49°52'30"N 066°00'00"W.
1E	1	66W	Eastern zone limit inbound	A point at 49°38'40"N 066°00'00"W.
1F	1	66W	Eastern zone limit outbound	A point at 49°34'25"N 066°00'00"W.
1G	1	66W	Eastern zone limit inbound	A point at 49°26'15"N 066°00'00"W.
1H	1	66W	Eastern zone limit outbound	A point at 49°22'00"N 066°00'00"W.
2	1	Pointe des Monts		A line joining: 49°19'00"N 067°22'30"W and 48°55'18"N 067°16'18"W.

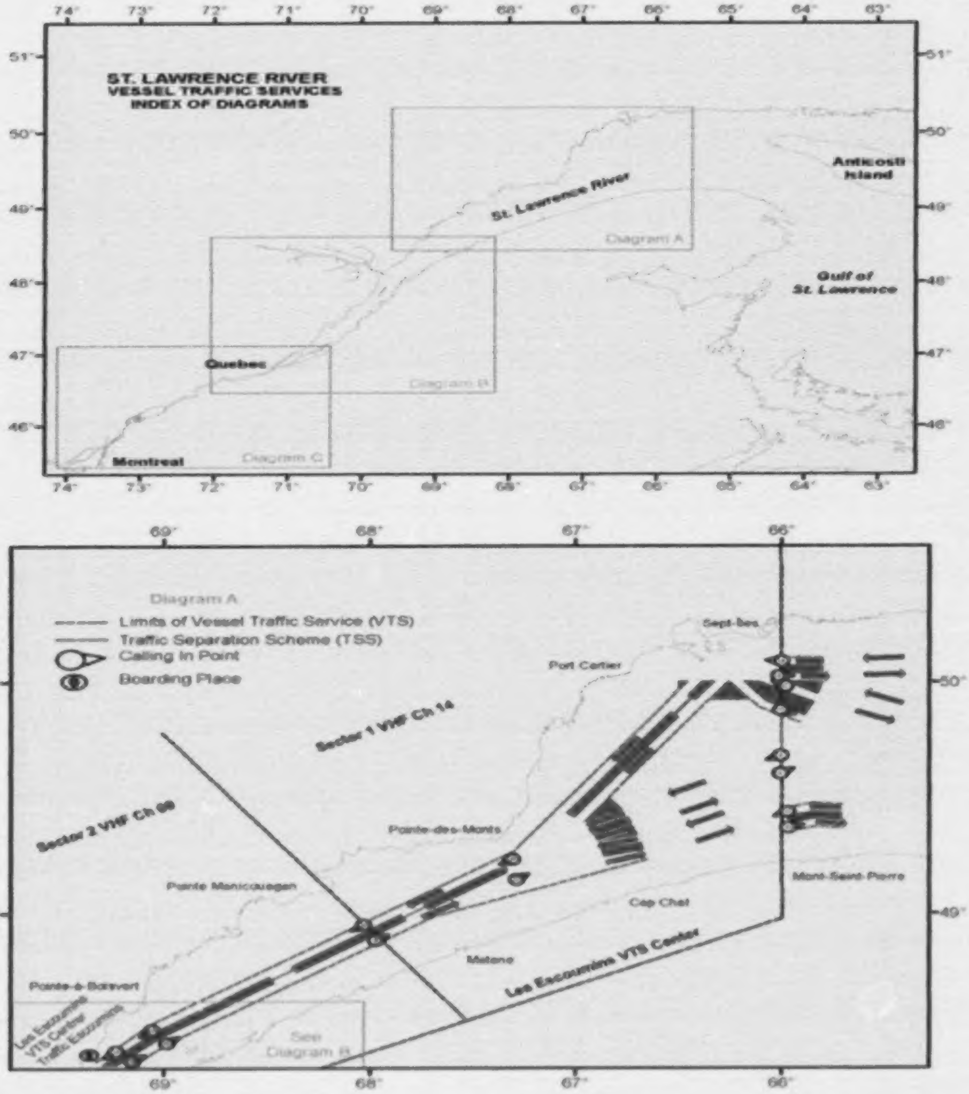
Number	Sector	Name	General Description and Conditions	Geographic Description
2A	1	Pointe des Monts	Upbound	A point at 49°13'40"N 067°21'20"W.
2B	1	Pointe des Monts	Downbound	A point at 49°07'30"N 067°19'30"W.
3	1/2	Pointe Manicouagan		A line joining: 49°06'04.3"N 068°11'39.7"W and 48°42'00"N 067°52'00"W.
3A	1/2	Pointe Manicouagan	Sector boundary Upbound	A point at 48°55'45"N 068°03'20"W.
3B	1/2	Pointe Manicouagan	Sector boundary Downbound	A point at 48°52'20"N 068°00'00"W.
4	2	Pointe au Boisvert		A line joining: 48°33'55"N 069°08'32"W and 48°19'42"N 068°50'18"W.
4A	2	Pointe au Boisvert	Upbound	A point at 48°30'00"N 069°03'00"W.
4B	2	Pointe au Boisvert	Downbound	A point at 48°26'48"N 068°59'20"W.
5A	2		Upbound	A point at 48°20'54"N 069°19'36"W.
5	2	Les Escoumins		A line joining: 48°19'05"N 069°24'53"W and 48°08'05"N 069°11'14"W.
5B	2	Les Escoumins	Downbound only	A point at 48°15'00"N 069°20'00"W.
6	2	Prince Shoal Light		A line joining: 48°09'36"N 069°39'00"W; 48°06'30"N 069°36'53"W; and 48°05'38"N 069°34'01"W and a line joining 48°04'10"N 069°33'19"W; and 48°03'04"N 069°25'29"W.
S1	2	Île St-Louis (Saguenay River)		A line joining: 48°15'03"N 070°01'09"W and 48°15'45"N 070°01'00"W.
S2	2	Chicoutimi		A point at 48°25'20"N 070°52'50"W.
7	2/3	Île Blanche	Sector boundary	A line joining: 48°00'06"N 069°45'48"W; 47°58'25"N 069°37'51"W; 47°52'35"N 069°33'02"W.
8	3	Cap-aux-Oies St-Roch		A line joining: 47°29'18"N 070°13'55"W and 47°18'42"N 070°10'42"W.
9	3	Sault au Cochon/ Beaujeu		A line joining: 47°11'49"N 070°38'16"W and 47°05'12"N 070°25'30"W.
10	3	Saint-Laurent		A line joining: 46°51'33"N 071°00'16"W and 46°50'09"N 070°59'15"W.
11	3	Ste Pétronille (Île d'Orléans)	Upbound only	A line joining: 46°50'41.5"N 071°07'57"W and 46°49'42"N 071°07'42"W.
12	3	Québec		A line joining: 46°48'38"N 071°12'12"W and 46°48'27"N 071°11'18"W.
13	3	Sillery	Downbound only	A line joining: 46°46'19"N 071°14'37"W; and 46°45'50"N 071°13'50"W.

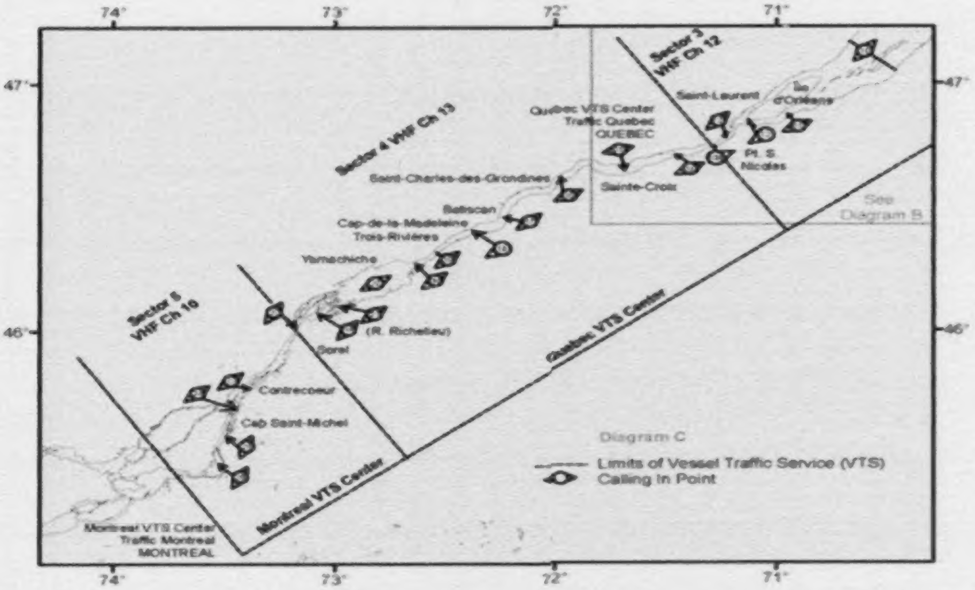
Number	Sector	Name	General Description and Conditions	Geographic Description
14	3/4	St-Nicolas	Sector boundary	A line joining: 46°42'07"N 071°26'47"W and 46°43'38"N 071°27'33"W.
15	4	Ste-Croix		A line joining: 46°37'40"N 071°42'00"W and 46°40'09"N 071°42'16"W.
16	4	Grondines		A line joining: 46°35'14"N 072°02'26"W and 46°33'39"N 072°01'18"W.
17	4	Batiscan		A line joining: 46°30'02"N 072°14'47"W and 46°29'51"N 072°12'27"W.
18	4	Cap-de-la-Madeleine	Upbound only	A line joining: 46°21'58.1"N 072°29'47.4"W and 46°21'47"N 072°28'04"W.
19	4	Pointe des Ormes		A line joining: 46°18'14"N 072°34'39"W and 46°17'24"N 072°34'15"W.
20	4	Port Saint-François	Downbound only	A line joining: 46°16'21.5"N 072°37'10"W and 46°16'50"N 072°37'48.5"W.
21	4	Yamachiche		A line joining: 46°12'53"N 072°49'11.5"W and 46°12'28.9"N 072°48'55"W.
22	4	Île des Barques		A line joining: 46°05'24"N 073°00'43"W and 46°05'08"N 073°00'13"W.
23	4/5	Tracy	Sector boundary	A line joining: 46°00'48"N 073°09'49"W and 46°01'00"N 073°11'00"W.
24	5	Contrecœur		A line joining: 45°49'55.3"N 073°16'55.7"W and 45°50'15"N 073°17'31"W.
25	5	Cap St-Michel		A line joining: 45°44'05"N 073°26'40"W and 45°43'30"N 073°25'15"W.
26	5	Section 110		A point at 45°37'54"N 073°29'18"W.
27	5	Calling in Point 2		A point at 45°31'36"N 073°31'39"W.

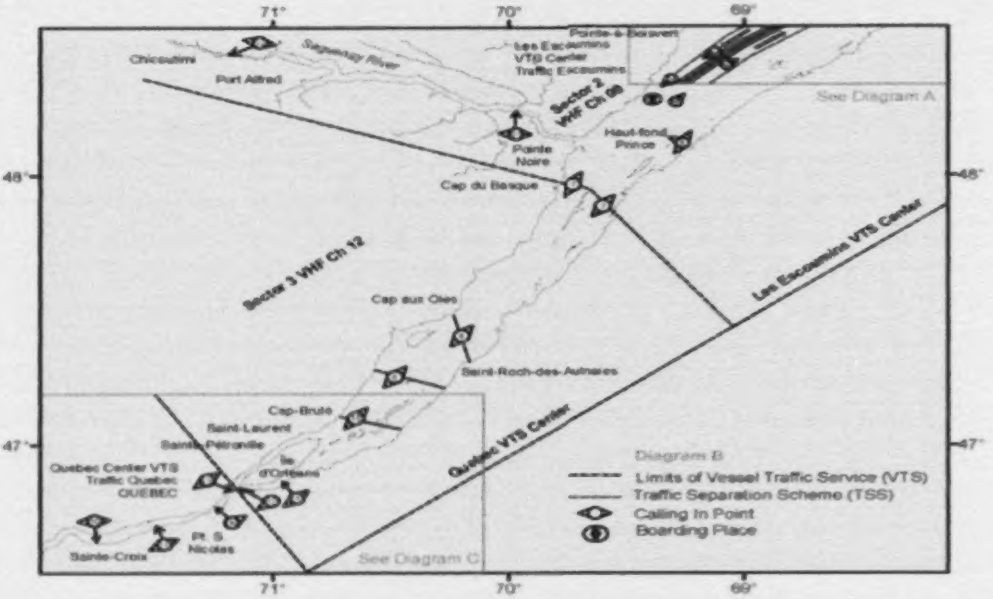
All times shall be given in Eastern Standard Time or Eastern Daylight Saving Time, whichever is in effect.

Note: Les Escoumins and Québec Traffic monitor navigation in the traffic zone using radar and Automatic Identification System (AIS).

Figure 3-10 - Vessel Traffic Services - St. Lawrence River


ST. LAWRENCE RIVER
VESSEL TRAFFIC SERVICES
INDEX OF DIAGRAMS
St. Lawrence River
Anticosti Island
Gulf of St. Lawrence
Quebec
Montreal
Diagram A
Diagram B
Diagram C
74°
73°
72°
71°
70°
69°
68°
67°
66°
65°
64°
63°
51°
50°
49°
48°
47°
46°
Diagram A
Limits of Vessel Traffic Service (VTS)
Traffic Separation Scheme (TSS)
Calling In Point
Boarding Place
Sector 1 VHF Ch 14
Sector 2 VHF Ch 09
Sept-Îles
Port Cartier
Pointe-des-Monts
Pointe Manicouagan
Mont-Saint-Pierre
Cap Chat
Matane
Pointe-à-Boisvert
Les Escoumins VTS Center
Les Escoumins VTS Center Traffic Escoumins
See Diagram B


74°
73°
72°
71°
47°
46°
Sector 3 VHF Ch 12
Saint-Laurent
Île d'Orléans
Quebec VTS Center
Traffic Quebec
QUEBEC
Pt. S. Nicolas
Sainte-Croix
Sector 4 VHF Ch 13
Saint-Charles-des-Grondines
Batiscan
Cap-de-la-Madeleine
Trois-Rivières
Yamachiche
See Diagram B
Sector 5 VHF Ch 10
(R. Richelieu)
Sorel
Quebec VTS Center
Contrecoeur
Cap Saint-Michel
Diagram C
Limits of Vessel Traffic Service (VTS)
Calling In Point
Montreal VTS Center
Montreal VTS Center
Traffic Montreal
MONTREAL


71°
70°
69°
48°
47°
Pointe-à-Boisvert
Chicoutimi
Saguenay River
Port Alfred
Les Escoumins
VTS Center
Traffic Escoumins
Sector 2 VHF Ch 09
See Diagram A
Haut-fond Prince
Pointe Noire
Cap du Basque
Les Escoumins VTS Center
Sector 3 VHF Ch 12
Cap aux Oies
Saint-Roch-des-Aulnaies
Cap-Brulé
Saint-Laurent
Sainte-Pétronille
Île d'Orléans
Quebec Center VTS
Traffic Quebec
QUEBEC
Pt. S Nicolas
Sainte-Croix
Quebec VTS Center
See Diagram C
Diagram B
Limits of Vessel Traffic Service (VTS)
Traffic Separation Scheme (TSS)
Calling In Point
Boarding Place

These charts (figures above) do not yet reflect the CIP changes.

3.9.8 *Sarnia Zone and Areas*

3.9.8.1 Sarnia Vessel Traffic Services Zone

Sarnia Vessel Traffic Services zone is comprised of the waters from Lake Huron Cut light buoy "11" to buoys 1 in the East and West Outer Channels in Lake Erie.

NUMERICAL C-I-P's identify mandatory calling-in-points under the *St. Clair and Detroit River Navigation Safety Regulations*.

3.9.8.2 Sarnia Vessel Traffic Services Areas

Sarnia Vessel Traffic Services Areas are comprised of Canadian waters in Lake Huron from De Tour Reef light to Lake Huron Cut light buoy "11", and Canadian waters in Lake Erie from East and West Outer Channel buoys "1" to Long Point light. Ships in these areas are required to guard the International Distress, Safety and Calling Frequency 156.8 MHz (Channel 16).

ALPHABETICAL C-I-P's identify voluntary calling-in-points in the Sarnia Vessel Traffic Services Areas.

3.9.8.3 Application

Within the St. Clair and Detroit Rivers, mariners should be guided by the traffic reporting provisions of the *St. Clair and Detroit River Navigational Safety Regulations*, which apply to all ships required by the *Ship Station Radio Regulations* to be fitted with a bridge-to-bridge radiotelephone.

Table 3-23 - Sectors and Boundaries for Sarnia Zone and Areas

Sector	Boundaries
1	The waters of Lake Huron, the St. Clair River and Lake St. Clair from a line running 090° - 270° True through De Tour Reef light, 45°56'54"N 083°54'12"W to a line joining Lake St. Clair light 42°27'54"N 082°45'18"W and Lake St. Clair light buoy "24", 42°27'53"N 082°45'03"W.
2	The waters of Lake St. Clair, the Detroit River and Lake Erie from a line joining Lake St. Clair light, 42°27'54"N 082°45'18"W and Lake St. Clair light buoy "24", 42°27'53"N 082°45'03"W to a line running 152° True from Long Point light 42°32'55"N 080°02'57.4"W in Lake Erie.

Table 3-24 - Identification and Frequencies for Sarnia Zone and Areas

Sector	Identifier	Channel	Frequency (MHz)
1	"Sarnia Traffic"	11	156.55
2	"Sarnia Traffic"	12	156.6

Note: Sarnia Traffic monitors navigation in the traffic zone using Automatic Identification System (AIS).

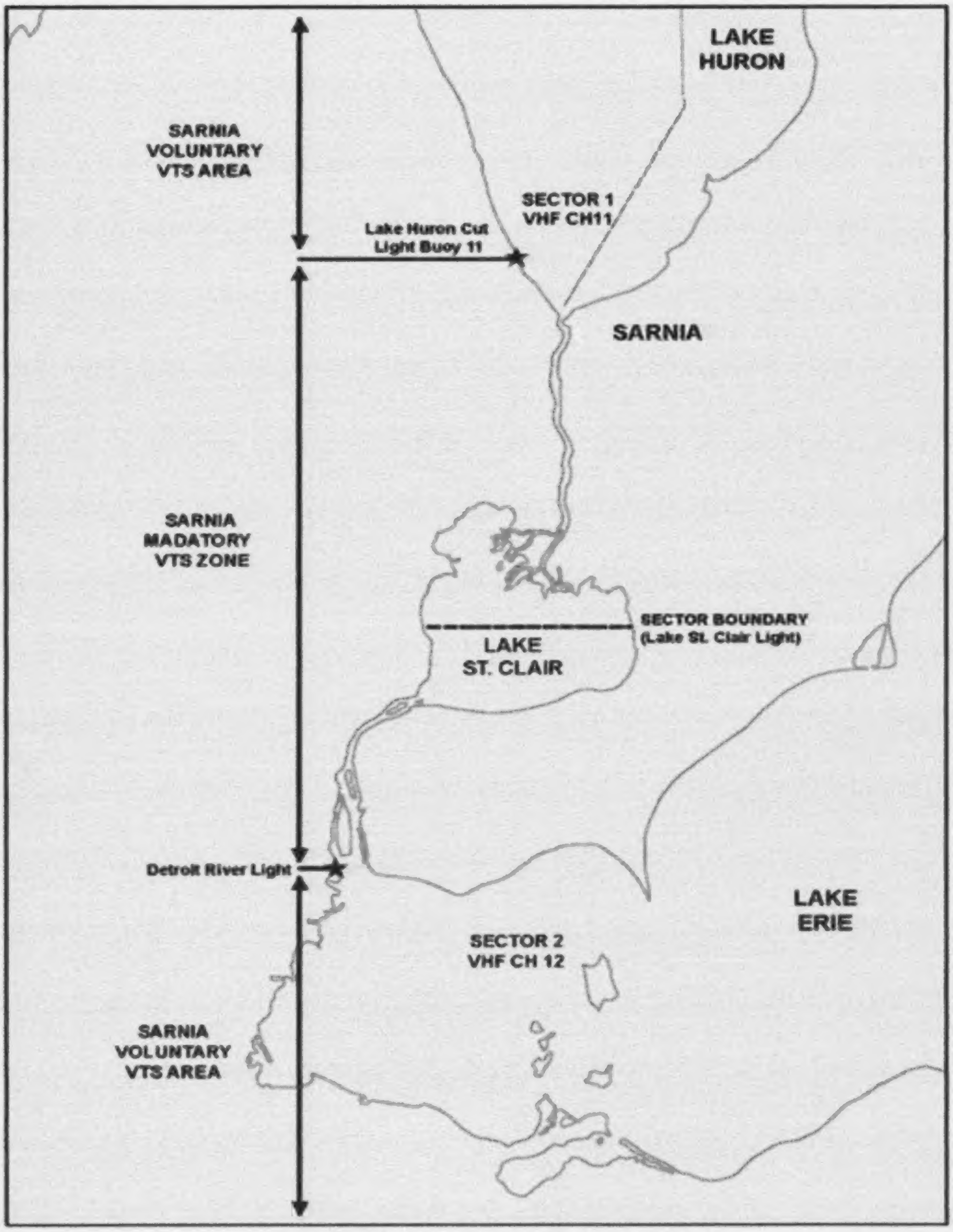
Table 3-25 - Calling-In-Points for Sarnia Zone and Areas

Number	Sector	Name	General Description and Conditions	Geographic Description
A	1	De Tour	At De Tour Reef light for vessels transiting St. Mary's River.	For vessels transiting St. Mary's River, a line running 090°- 270° True through 45°56'54"N 083°54'12"W.
		Cordwood Point	At Cordwood Point light buoy "1" for vessels transiting to or from Lake Michigan. These vessels should specify Cordwood Point.	For vessels transiting to or from Lake Michigan, a line joining 45°56'54"N 083°54'12"W and 45°40'53"N 84°18'05"W.
B	1	Great Duck Island	A line joining Great Duck Island light and Presque Isle light.	A line running from 45°38'30"N 082°57'48"W to 45°21'24"N 083°29'30"W.
C	1	Cove Island	At Cove Island light for vessels enroute to or from Georgian Bay.	A line running 000° True from 45°19'37"N 081°44'07"W Call Sarnia MCTS on Ch26.
D	1	Harbour Beach Point Clark	Mariners should specify Point Clark when following Georgian Bay courses and Harbor Beach at all other times.	A line joining: 43°50'42"N 082°37'54"W and 44°04'22.1"N 081°45'25.6"W.
1	1	30 minutes north of Lake Huron Cut light buoy "11"	30 minutes north of Lake Huron Cut lighted buoys "11" and "12" (downbound only).	
E	1	Lake Huron Cut Light buoy "11"	Lake Huron Cut light buoy "11".	A line running 090°-270° True through 43°05'25"N 082°24'38"W.
2	1	Lake Huron Cut Light "7"	Lake Huron Cut light "7" (downbound only).	A line running 090°-270° True through 43°03'36"N 082°25'06"W.
3	1	Lake Huron Cut Light buoy "1"	At Lake Huron Cut light buoy "1" (upbound only).	A line running 090°-270° True through 43°00'37"N 082°24'53"W.
4	1	Black River	At St. Clair / Black River Junction Light.	On north shore of river entrance 42°58'24"N 082°25'12"W.
5	1	Stag Island Upper Light	At Stag Island Upper Light (upbound only).	A line running 090° True from 42°54'25"N 082°27'57.5"W.
6	1	Salt Dock	Marine City Salt Dock light.	A line running 110° True from 42°41'16.8"N 082°30'20.5"W.
7	1	Light 23	Grande Point light "23" (downbound only).	A line joining: 42°35'07"N 082°33'23.5"W and 42°35'04"N 082°33'10"W.
8	1	Light 2	A line joining St. Clair Flats Canal light "2" and St. Clair Cutoff Pier light "X32/1" (upbound only).	A line running from 42°31'06"N 082°41'12"W and 42°30'54"N 082°41'08"W.
9	1	Lake St. Clair light	Lake St. Clair Light.	A line running from 42°27'54"N 082°45'18"W and 42°27'53"N 082°45'03"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
10	2	Station Belle Isle	Belle Isle light (downbound only).	A line running 150° True from 42°20'24"N 082°57'36"W.
10A	2	Rouge River	20 minutes from entering or leaving the Rouge River or Shortcut Canal.	
10B	2	Rouge River	Immediately before entering or leaving the Rouge River or Shortcut Canal.	A line running from 42°16'26"N 083°06'36"W and 42°16'31"N 083°06'33.5"W.
11	2	Grassy Island light	Grassy Island light.	A line running 090°-270° True through 42°13'30"N 083°08'00"W.
12	2	Detroit River light	Detroit River light.	A line running 090°-270° True through 42°00'01"N 083°08'30"W.
F	2	Southeast Shoal	At Southeast Shoal light.	A line from 41°54'33"N 082°30'36"W to 41°49'35"N 082°27'47"W thence to 41°32'12"N 082 42'42"W.
G	2	Long Point	A line joining Long Point light to the south shore of Lake Erie.	A line running 152° True from 42°32'55"N 080°02'58"W to 42°14'35"N 079°49'44"W.

All times shall be given in Eastern Standard Time or Eastern Daylight Saving Time, whichever is in effect

Figure 3-11 - Vessel Traffic Services - Sarnia VTS Zone and Areas


LAKE HURON
SARNIA VOLUNTARY VTS AREA
SECTOR 1 VHF CH11
Lake Huron Cut Light Buoy 11
SARNIA
SARNIA MADATORY VTS ZONE
SECTOR BOUNDARY (Lake St. Clair Light)
LAKE ST. CLAIR
Detroit River Light
LAKE ERIE
SECTOR 2 VHF CH 12
SARNIA VOLUNTARY VTS AREA

SARNIA VTS ZONE & AREAS

3.9.8.4 Frequency Guard Great Lakes Basin

Amendments to the VHF Practices and Procedures regulations which make Channel 13 (156.650 MHz) the dedicated Bridge-to-Bridge frequency in the Great Lakes Basin became effective February 1, 1989. At that time the VHF listening watch requirements for vessels upbound/downbound in these waters were established as follows:

Table 3-26 - VHF Listening Watch Requirements

	Location	**Monitor**	**Remarks**
A	CIP #2 to CIP #6-7 (Seaway Beauharnois)	Seaway Ch14 and Ch16	Ch13 Bridge-to-Bridge exemption through this area.
B	CIP #6-7 to CIP #10-11 (Seaway Eisenhower)	Seaway Ch12 and Ch16	Ch13 Bridge-to-Bridge exemption through this area.
C	CIP #10-11 to Crossover Island (Seaway Iroquois)	Seaway Ch11 and Ch16	Ch13 Bridge-to-Bridge exemption through this area.
D	Crossover Island to Cape Vincent (Seaway Clayton)	Bridge Ch13 and Ch16	Ch13 serves as Bridge in this area. Seaway Clayton on Ch12 through this area.
E	Cape Vincent to mid Lake Ontario (Seaway Sodus)	Bridge Ch13 and Ch16	Seaway Sodus also on Ch12 through this area.
F	Mid Lake Ontario to CIP #15 (Seaway Newcastle)	Bridge Ch13 and Ch16	Seaway Newcastle operates on Ch11 through this area.
G	CIP #15 to CIP #16 (Welland Canal)	Seaway Ch14 and Ch16	Ch13 Bridge-to-Bridge exemptions through this area.
H	CIP #16 to Long Point Lake Erie (Seaway Long Point)	Bridge Ch13 and Ch16	Seaway Long Point on Ch11.
I	Long Point to Detroit River Light (Lake Erie)	Bridge Ch13 and Ch16	Sarnia MCTS Centre operate on Ch12.
J	Detroit River Light to Lake St. Clair Light	Bridge Ch13 and MCTS Centre Ch12	Sarnia MCTS Centre will monitor Ch16 on behalf of vessels.
K	Lake St. Clair Light to Lake Huron Cut Light Buoy "11"	Bridge Ch13 and MCTS Centre Ch11	Sarnia MCTS Centre will monitor Ch16 on behalf of vessels.
L	Lake Huron Cut Light Buoy "11" to De Tour Reef Light including Cove Island (Lake Huron and Georgian Bay)	Bridge Ch13 and Ch16	Sarnia MCTS Centre operate on Ch11 Lake Huron.
M	De Tour Reef Light to Île Parisienne Light (St. Mary's River)	Bridge Ch13 and Ch12	USCG Sault Ste Marie (SOO Traffic) will monitor Ch16 on behalf of vessels.
N	Île Parisienne Light through Lakes Superior/Michigan	Bridge Ch13 and Ch16	

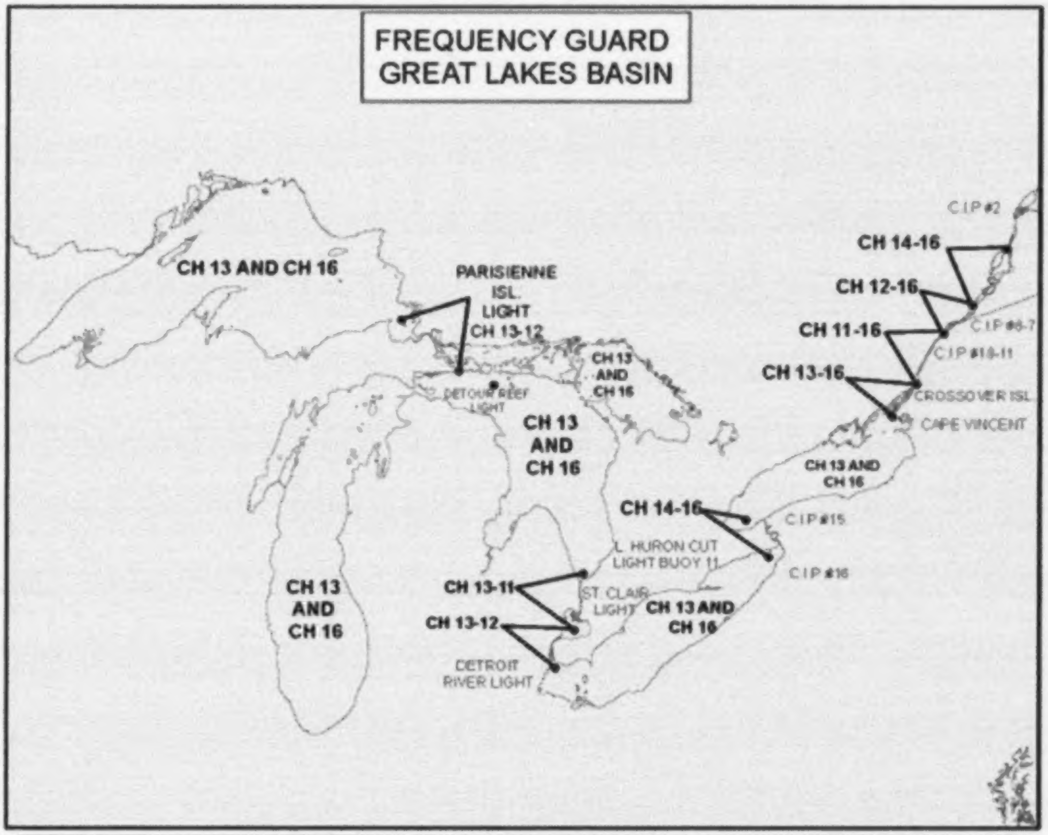
Notes:

1) *Portable VHF equipment may be accepted to meet the Ch13 requirement when a ship is required by the Ship Station Radio Regulations to fit only one radiotelephone installation.*
2) *In summary, vessels shall monitor Ch13 Bridge-to-Bridge continuously except in the exempted areas of St. Lambert to Crossover Island and in the Welland Canal where the appropriate Seaway channel must be guarded.*
3) *Channel 16 shall also be guarded throughout the Great Lakes Basin except from Detroit River Light to Lake Huron Cut Lighted Buoy "11" (Sarnia Vessel Traffic Services zone) and from De*

Tour Reef Light to Île Parisienne Light (St. Mary's River). Since vessels will be guarding Ch13 and the Vessel Traffic Services frequency through the zones, watch on Ch16 will be maintained by Sarnia MCTS for the Sarnia Vessel Traffic Services zone and by USCG Sault Control for the De Tour Reef Light to Île Parisienne zone on behalf of vessels in transit.

4) *While the Ch13 Bridge-to-Bridge guard is to be maintained continuously (except in exempted waters) the watch on Ch16 may be relinquished when reporting at a CIP or exchanging traffic with any station of the maritime mobile service on an appropriate working frequency.*
5) *When wishing to contact a Harbour, Bridge or Pilotage authority initial contact should be made on the appropriate working channel as directed.*
6) *Information contained in the chart and narrative is based on the latest information at time of printing.*

Figure 3-12 - Frequency Guard - Great Lakes Basin


FREQUENCY GUARD
GREAT LAKES BASIN
CH 13 AND CH 16
PARISIENNE ISL. LIGHT CH 13-12
DETOUR REEF LIGHT
CH 13 AND CH 16
CH 13 AND CH 16
CH 13 AND CH 16
C.I.P #2
CH 14-16
CH 12-16
C.I.P #6-7
CH 11-16
C.I.P #10-11
CH 13-16
CROSSOVER ISL
CAPE VINCENT
CH 13 AND CH 16
CH 14-16
C.I.P #15
L. HURON CUT LIGHT BUOY 11
C.I.P #16
CH 13-11
ST. CLAIR LIGHT
CH 13 AND CH 16
CH 13-12
DETROIT RIVER LIGHT
CH 13 AND CH 16

VHF #1	BRIDGE TO BRIDGE CH 13				SEAWAY CH14	BRIDGE TO BRIDGE CH13	SEAWAY BRIDGE TO BRIDE CH13	SEAWAY CH11	SEAWAY CH12	SEAWAY CH14
AREA	LAKES SUPERIOR, MICHIGAN, HURON, GEORGIAN BAY NORTH OF L. HURON CUT LIGHT BUOY #11	L. HURON CUT LIGHT BUOY #11 TO L. ST. CLAIR LIGHT	L. ST CLAIR LIGHT TO DETROIT RIVER LIGHT ST. MARY'S RIVER	L. ERIE BETWEEN DETROIT RIVER LIGHT & C.P. #16	WELLAND CANAL C.P. #15 TO C.P. #16	L. ONTARIO BETWEEN C.P. #15 & CAPE VINCENT	CAPE VINCENT TO CROSSOVER ISLAND	CROSSOVER ISLAND TO C.P. #6-7	C.P. #10-11 TO C.P. #6-7	C.P. #6-7 TO C.P. #2
VHF #2	CH16	VTS CH11	VTS CH12	CH16						

3.9.9 *Strait of Belle Isle – Voluntary Zone*

Note: Latitude and longitude positions given for the Strait of Belle Isle Voluntary Vessel Traffic Services zone are in NAD 83.

The Canadian Coast Guard has established a voluntary VTS zone in the Strait of Belle Isle, Newfoundland.

The Belle Isle VTS zone includes all waters within the Strait of Belle Isle bounded by a line extending from Double Island, Labrador, 52º15'30"N 055º32'55"W, to Northeast Ledge, Belle Isle, 52º02'11.8"N 055º16'05.6"W, to White Islands, Newfoundland, 51º34'51"N 055º21'05"W; thence, westerly to Partridge Point Light, Newfoundland, 51º34'52.7"N 055º25'16.1"W; thence, westerly along the south shore of the Strait of Belle Isle to Seal Islands, Newfoundland, 51º17'16.2"N 056º45'51.8"W; thence, along a line to Forteau Light, Labrador, 51º28'10.2"N 056º57'12.1"W; and thence, easterly along the north shore of the Strait of Belle Isle to Double Island, Labrador, 52º15'30"N 055º32'55"W.

Vessels required to comply with the *Vessel Traffic Services zones Regulations* are requested to participate in the system. Fishing vessels are encouraged to maintain a listening watch or contact "Belle Isle Traffic" on Channel 14 VHF to obtain up-to-date information on vessels reported transiting the Belle Isle VTS zone.

Table 3-27 - Sector and Boundaries for Strait of Belle Isle

Sector	Boundaries
1	**Eastern Boundary**: A line extending from Double Island, Labrador, 52°15'30"N 055°32'55"W, to Northeast Ledge, Belle Isle, 52°02'11.8"N 055°16'05.6"W, to White Islands, Newfoundland, 51°34'51"N 055°21'05"W; thence, westerly to Partridge Point Light, Newfoundland, 51°34'52.7"N 055°25'16.1"W. **Western Boundary**: A line joining Seal Island, Newfoundland, 51°17'16.2"N 056°45'51.8"W, to Forteau Light, Labrador, 51°28'10.2"N 056°57'12.1"W.

Table 3-28 - Identification and Frequencies for Strait of Belle Isle

Sector	Identifier	Channel	Frequency (MHz)
1	"Belle Isle Traffic"	14	156.7

Table 3-29 - Calling-In-Points for Strait of Belle Isle

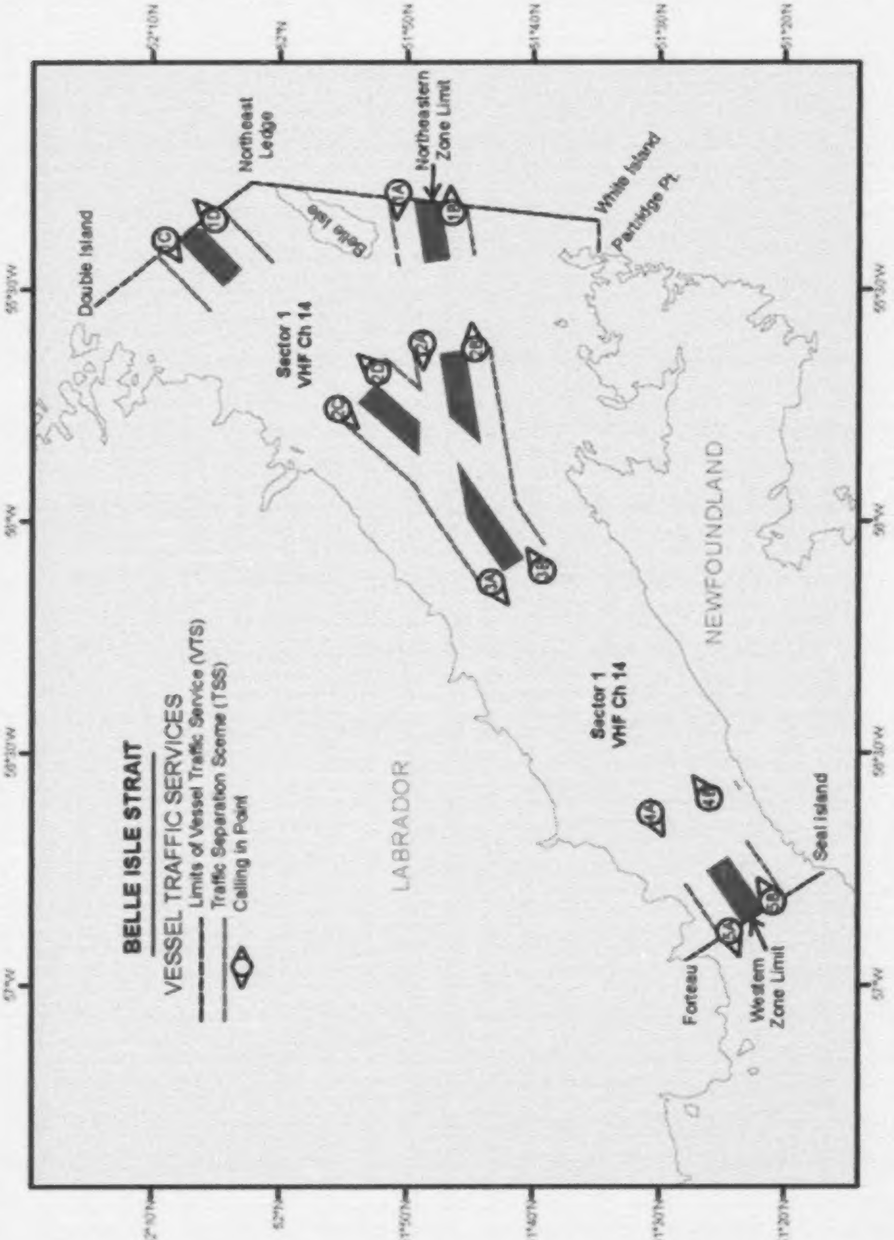
Number	Sector	General Description and Conditions	Geographic Description
1A	1	Inbound (Belle Isle South Route)	A point at 51°50'29.2"N 055°18'14.6"W.
2A	1	Inbound (Belle Isle South Route)	A point at 51°48'23.8"N 055°38'36.3"W.
3A	1	Inbound	A point at 51°43'13.8"N 056°07'28.2"W.
4A	1	Inbound	A point at 51°33'50.9"N 056°29'59.4"W.
5A	1	Inbound	A point at 51°24'07.6"N 056°52'59"W.
1B	1	Outbound (Belle Isle South Route)	A point at 51°46'21.4"N 055°18'59.8"W.
2B	1	Outbound (Belle Isle South Route)	A point at 51°44'27.1"N 055°37'32.3"W.
3B	1	Outbound	A point at 51°39'53.9"N 056°03'54.3"W.
4B	1	Outbound	A point at 51°30'30.7"N 056°26'27.1"W.
5B	1	Outbound	A point at 51°20'46.4"N 056°49'29.8"W.

Number	Sector	General Description and Conditions	Geographic Description
1C	1	Inbound (Belle Isle North Route)	A point at 52°09'00.4"N 055°24'40.7"W.
2C	1	Inbound (Belle Isle North Route)	A point at 51°54'27.4"N 055°45'53.0"W.
1D	1	Outbound (Belle Isle North Route)	A point at 52°05'48.0"N 055°20'37.7"W.
2D	1	Outbound (Belle Isle North Route)	A point at 51°51'47.3"N 055°41'04.1"W.

All times shall be given in Newfoundland Standard Time or Newfoundland Daylight Saving Time, whichever is in effect.

Note: Belle Isle Traffic monitors navigation in the traffic zone using Automatic Identification System (AIS).

Figure 3-13 - Vessel Traffic Services - Strait of Belle Isle


BELLE ISLE STRAIT
VESSEL TRAFFIC SERVICES
Limits of Vessel Traffic Service (VTS)
Traffic Separation Sceme (TSS)
Calling in Point
LABRADOR
NEWFOUNDLAND
Sector 1
VHF Ch 14
Sector 1
VHF Ch 14
Double Island
Northeast Ledge
Northeastern Zone Limit
White Island
Partridge Pt.
Belle Isle
Forteau
Western Zone Limit
Seal Island
1A
1B
1C
1D
2A
2B
2C
2D
3A
3B
4A
4B
5A
5B
52°10'N
52°N
51°50'N
51°40'N
51°30'N
51°20'N
55°30'W
56°W
56°30'W
57°W

3.9.10 *Strait of Canso and Eastern Approaches*

Note: Latitude and longitude positions given for the Strait of Canso and Eastern Approaches Vessel Traffic Services zone are in NAD 83.

Table 3-30 - Sector and Boundaries for Strait of Canso and Eastern Approaches

Sector	Boundaries
1	All Canadian waters south of the Canso canal north lock gate, 45°38'58.2"N 061°24'57.3"W, contained within the area bounded by a line connecting points 45°38'23.3"N 060°29'15.3"W, 45°25'48.8"N 060°29'34"W, and the Canadian territorial boundary at 45°24'09.3"N 060°29'34.3"W; thence, along Canada's territorial boundary to a point at 45°18'19.8"N 060°35'03.7"W; and thence, along a line to Cape Canso at 45°18'21.8"N 060°56'16.3"W.

Note: Canso Traffic monitors navigation in the traffic zone using radar and Automatic Identification System (AIS).

Table 3-31 - Identification and Frequencies for Strait of Canso and Eastern Approaches

Sector	Identifier	Channel	Frequency (MHz)
1	"Canso Traffic"	14	156.7

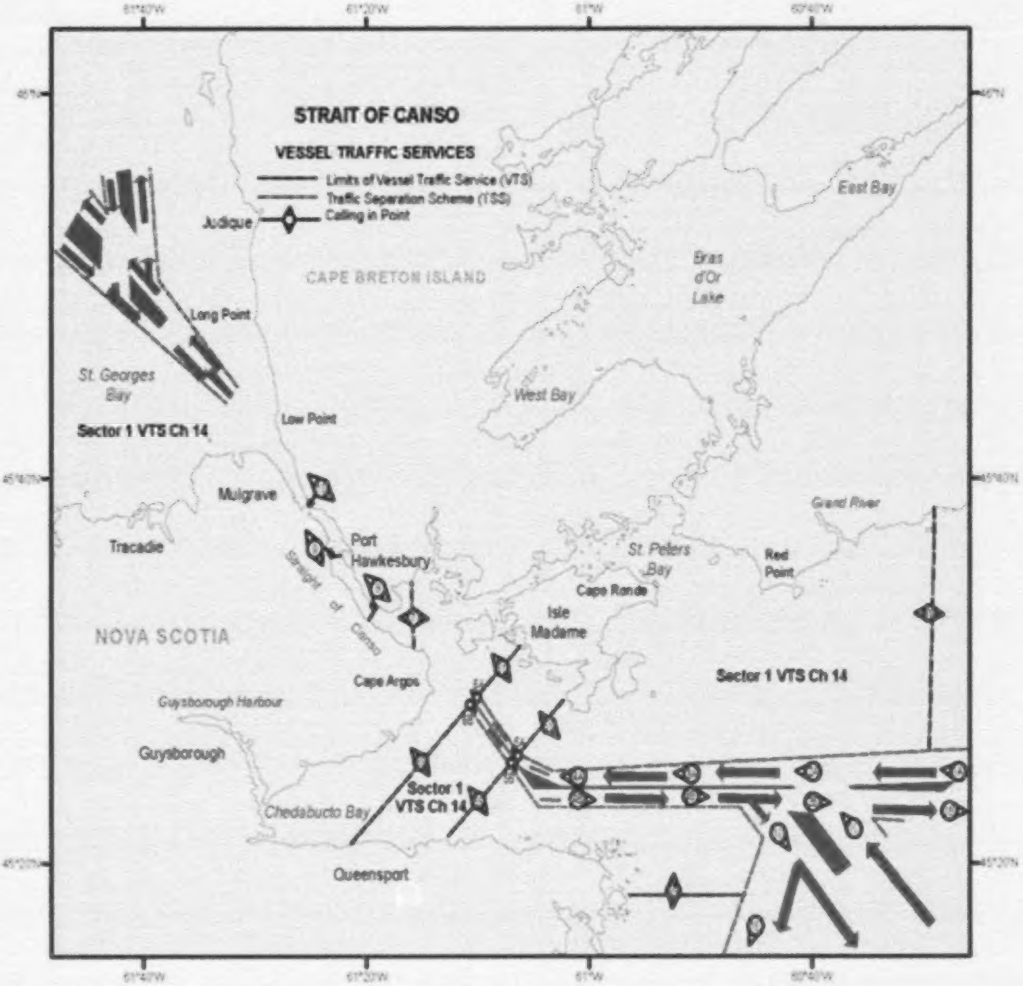
Table 3-32 - Calling-In-Points for Strait of Canso and Eastern Approaches

Number	Sector	Name	General Description and Conditions	Geographic Description
1Y	1			A line from 45°38'23.3"N 060°29'15.3"W, to 45°25'48.8"N 060°29'34"W.
1A	1		Entrance to inbound traffic lane	A line from 45°25'48.8"N 060°29'34"W, to the Canadian territorial limit at 45°24'9.3"N 060°29'34.3"W.
1B	1		Exit from outbound traffic lane	A line from 45°23'43.9"N 060°29'58.3"W, along Canada's territorial boundary, to 45°22'09"N 060°31'27.8"W.
1C	1		Entrance to inbound traffic lane	A line from 45°20'53"N 060°32'39.5"W, along Canada's territorial boundary, to 45°18'36.8"N 060°34'47.7"W.
1D	1		Exit from outbound traffic lane	A line from 45°18'20.1"N 060°36'30.3"W, to 45°18'20.8"N 060°41'06.3"W.
1E	1		Exit from outbound traffic lane	A line from 45°18'20.8"N 060°41'06.3"W, to 45°18'21.3"N 060°46'04.2"W.
1S	1			A line from 45°18'21.3"N 060°46'04.2"W, to 45°18'21.8"N 060°56'16.3"W.
2A	1		Inbound traffic lane	A point at 45°24'40.3"N 060°41'39.3"W.
2B	1		Outbound traffic lane	A point at 45°23'17"N 060°41'39.3"W.
3A	1		Inbound traffic lane	A point at 45°24'32.5"N 060°50'16.3"W.
3B	1		Outbound traffic lane	A point at 45°23'24.5"N 060°50'16.3"W.
4A	1		Inbound traffic lane	A point at 45°24'24.3"N 060°58'45.3"W.
4B	1		Outbound traffic lane	A point at 45°23'24.3"N 060°58'45.3"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
5S	1			A line from 45º21'08.3"N 061º13'49.3"W to 45º25'05.8"N 061º07'10.9"W.
5B	1		Outbound traffic lane	A point at 45º25'14.2"N 061º06'57.0"W.
5A	1		Inbound traffic lane	A point at 45º25'31.3"N 061º06'28.1"W.
5Y	1			A line from 45º28'31.3"N 061º01'25.3"W to 45º25'37.8"N 061º06'17.4"W.
6S	1			A line from 45º20'58.3"N 061º21'43.4"W to 45º28'07.2"N 061º10'49.8"W.
6B	1		Outbound traffic lane	A point at 45º28'15.2"N 061º10'26.0"W.
6A	1		Inbound traffic lane	A point at 45º28'37.8"N 061º10'03.4"W.
6Y	1			A line from 45º31'15.3"N 061º05'59.5"W to 45º28'42.0"N 061º09'56.4"W.
7	1	C14 buoy		A line from 45°34'42.3"N 061°15'52.6"W to 45°31'13.8"N 061°15'40.4"W.
8	1	Critchett Point		A line from 45°33'34.3"N 061°19'03.4"W to 45°32'52.3"N 061°19'44.4"W.
9	1	C26 buoy		A line from 45°36'23.2"N 061°22'14.3"W to 45°36'15.2"N 061°23'13.2"W.
10	1	Canal North Lock Gate		Canso Canal North Lock Gate, 45°38'58.2"N 061°24'57.3"W.

All times shall be given in Atlantic Standard Time or Atlantic Daylight Saving Time, whichever is in effect

Figure 3-14 - Vessel Traffic Services - Strait of Canso


61°40'W
61°20'W
61°W
60°40'W
46°N
45°40'N
45°20'N
STRAIT OF CANSO
VESSEL TRAFFIC SERVICES
Limits of Vessel Traffic Service (VTS)
Traffic Separation Scheme (TSS)
Calling in Point
Judique
CAPE BRETON ISLAND
Bras d'Or Lake
East Bay
Long Point
St. Georges Bay
Sector 1 VTS Ch 14
Low Point
West Bay
Mulgrave
Tracadie
Port Hawkesbury
Strait of Canso
Grand River
St. Peters Bay
Red Point
Cape Ronde
Isle Madame
NOVA SCOTIA
Sector 1 VTS Ch 14
Cape Argos
Guysborough Harbour
Guysborough
Sector 1 VTS Ch 14
Chedabucto Bay
Queensport

3.9.11 *Prince Rupert*

Table 3-33 - Sectors and Boundaries of Prince Rupert - North

Sector	Boundaries
1	All Canadian waters north of Vancouver Island from a line joining Cape Caution light 51°09'50"N127°47'06"W; to Mexicana Point 50° 54' 51.96"N 127° 59' 58.04"W thence to Cape Sutil 50°52'34.23"N 128°3'7.24"W. Then following the northwestern shore line to Cape Scott thence; a line extending 281° (T) from 50°46'57"N 128°25'32"W to 50°52'00"N 129°05'00"W following a line 220 degrees (T) to the limit of the Territorial Sea; and thence northward following the limit of the Territorial Sea to a line 270 degrees (T) from Cape Knox on the northwestern tip of Graham Island 54°11'00"N 133°05'00"W to the limit of the Territorial Sea, but not including those waters described in Sector 2 or mainland inlets and channels outside VHF coverage.
2	All Canadian waters bounded by a line running from Bareside Point 53°54'12"N 130°16'31"W; to Swede Point 53°53'16"N 130°15'35"W. Then following the northern shoreline of Pitt Island to a position of 53°48'03"N 129°58'31"W; thence to a position of 53°48'41.4"N 129°57'07.9"W; thence northward following the mainland shore to a position of 54°09'38"N 129°57'37"W; thence to a position of 54°11'53"N 129°58'51"W; thence northward following the mainland shore to 54°37'57"N 130°26'31"W; thence to a position of 54°38'02"N 130°26'31"W; thence northward along the west shore of Maskelyne Island to Maskelyne Point 54°38'55"N 130°26'42"W; thence to Wales Point 54°42'17"N 130°28'33"W; thence westward along the shore of Wales Island to 54°42'06"N 130°31'47"W; thence to a position of 54°42'27"N 130°36'50"W; thence westward along the International Boundary to Cape Muzon light 54°39'48"N 132°41'30"W; thence westward along the shore of Dall Island to Point Cornwallis light 54°42'12"N 132°52'17"W; thence southwestward to a point at 54°31'23.9"N 133°12'43.2"W; thence southwestward to a point at 54°21'02.3"N 133°22'32.9"W; thence following the limit of the territorial sea to the south to a point at 54°11'00.0"N 133°28'00.0"W; thence 090 degrees (T) eastward to Cape Knox on Graham Island 54°11'00"N 133°05'00"W; thence eastward along Graham Island shoreline to Rose Spit 54°11'12.5"N 131°38'43"W; thence southeastward to Seal Rocks 54°00'00"N 130°47'26"W; thence to Oval Point on Porcher Island 53°56'24"N 130°43'15"W, thence eastward following Porcher Island shoreline to Bareside Point.

Note: Prince Rupert Traffic monitors navigation in the traffic zone using AIS.

Table 3-34 - Identification and Frequencies of Prince Rupert

Sector	Identifier	Channel	Frequencies (MHz)
1	"Prince Rupert Traffic"	11	156.55
2	"Prince Rupert Traffic"	71	156.575

All times shall be given in Pacific Standard Time or Pacific Daylight Saving Time, whichever is in effect.

Table 3-35 - Calling-In-Points of Prince Rupert - North

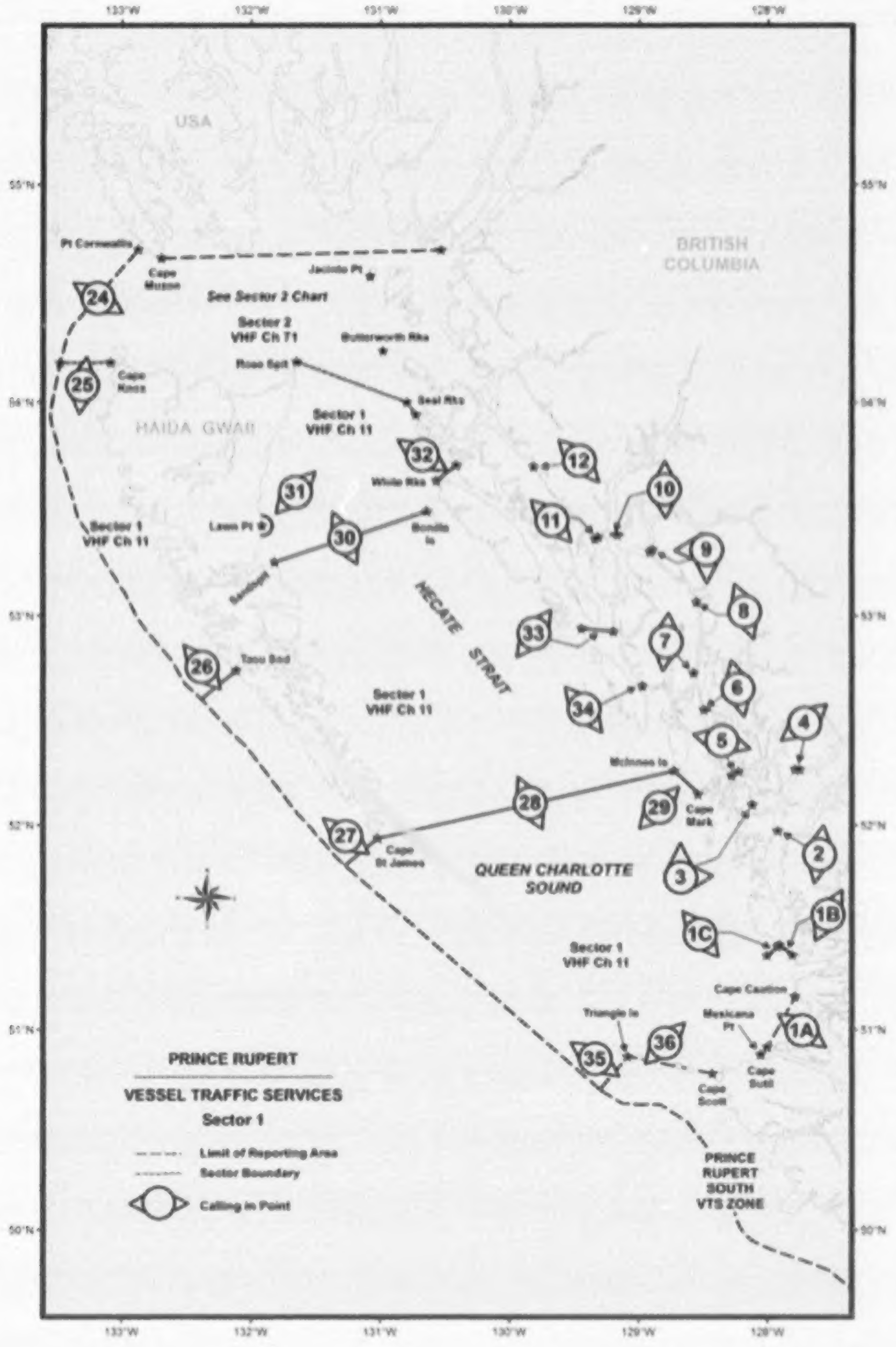
Number	Sector	Name	General Description and Conditions	Geographic Description
1A	Change	Cape Caution Cape Sutil	A line from Cape Caution light to Mexicana Point thence to Cape Sutil.	A line running from: 51°09'50"N 127°47'06"W to 50°54'51.96"N 127°59'58.04"W to 50°52'34.23"N 128°3' 7.24"W.
1B	1	Dugout Rocks	A line joining Dugout Rocks light with Cape Calvert. Mariners bound for Fitz Hugh Sound shall report ETA Dugout Rocks.	A line running from: 51°22'01.5"N 127°48'23.5"W to 51°25'04"N 127°54'16"W.
1C	1	Pearl Rocks	A line joining Pearl Rocks with the southern most of the Sorrow Islands and thence Cape Calvert. Mariners bound for Queen Charlotte Sound via North Passage shall report ETA Pearl Rocks.	A line running from: 51°22'00"N 128°00'12"W to 51°24'33"N 127°55'18"W; thence 51°25'04"N 127°54'16"W.
2	1	Fog Rocks	Fog Rocks light.	A line running 090° - 270° (T) through 51°58'21"N 127°55'02"W.
3	1	Walker Island	Walker Island light Lama Passage.	A line running 090° - 270° (T) through 52°05'58"N 128°06'55"W.
4	1	Barba Point	A line joining Barba Point and Boscowitz Point.	A line running from: 52°16'11"N 127°44'55"W to 52°16'06"N 127°47'00"W.
5	1	Idol Point	A line joining Idol Point light to Graven Point.	A line running from: 52°14'19"N 128°16'31"W to 52°15'27"N 128°13'19"W.
6	1	Freeman Point	Freeman Point light. If northbound, mariners shall report ETA Boat Bluff light and Ditmars Point. Mariners shall advise if intending to transit Hiekish Narrows.	A line running 090° - 270° (T) through 52°33'11.5"N 128°29'18"W.
7	1	Ditmars Point	Ditmars Point If southbound, mariners shall report ETA Boat Bluff light and Freeman Point.	A line running 090° - 270° (T) through 52°43'48"N 128°34'12"W.
8	1	Griffin Point	Griffin Point light. If southbound, mariners shall advise if intending to transit Hiekish Narrows.	A line running 090° - 270° (T) through 53°03'56"N 128°32'54"W.
9	1	Kingcome Point	A line joining Kingcome Point light and Angler Cove..	A line running from: 53°17'57"N 128°54'23"W to 53°18'44"N 128°53'17"W.
10	1	Money Point	Money Point light. Mariners bound for Kitimat shall report an ETA for Emilia Island light.	A line running 090° - 270° (T) through 53°22'55"N 129°09'50"W.
11	1	Sainty Point	A line joining Sainty Point light and Yolk Point If northbound, mariners shall report an ETA for Tom Island light and Pitt Island light.	A line running from: 53°22'18"N 129°18'40"W to 53°21'47"N 129°20'00"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
12	1	Pitt Island light	Pitt Island light. If southbound, mariners shall report an ETA for Tom Island light and Sainty Point light.	A line running 045° - 225° (T) through 53°42'00"N 129°48'38"W.
13A	Change	Baker Inlet	A line across Grenville Channel from Baker Inlet light.	A line running 052° - 232° (T) through 53°48'41.4"N 129°57'07.9"W.
13B	Change	Swede Point	A line across Ogden Channel joining Bareside Point and Swede Point.	A line joining 53°54'12"N 130°16'31"W and 53°53'16"N 130°15'35"W.
14A	2	Lawyer Islands	A line joining Hunt Point and Lawyer Islands.	A line joining 54°06'11"N 130°24'54"W; to 54°06'36"N 130°20'12"W.
14B	2	Genn Islands	A line joining Lawyer Islands and Hazel Point.	A line joining 54°06'36"N 130°20'12"W to 54°07'03"N 130°14'39"W.
15A	2	Petrel Rock	A line from Digby Island to West Kinahan Island.	A line running 180° (T) from 54°15'33"N 130°25'00"W to 54°12'30"N 130°25'00"W.
15B	2	Greentop Islet	A line from West Kinahan Island to a position near Greentop Islet.	A line running from: 54°12'30"N 130°25'00"W; to 54°10'40"N 130°25'00"W.
15C	2	Holland Rock	A line from a position near Greentop Islet to Kitson Island.	A line running from: 54°10'40"N 130°25'00"W to 54°10'40"N 130°19'00"W.
16	2	Lucy Islands	A line from Lucy Islands light to Tugwell Island.	A line running from: 54°17'46"N 130°36'25"W to 54°19'10"N 130°30'54"W.
17	2	Pillsbury Point	A line joining Pillsbury Point and Tobey Point.	A line running from: 54°17'58"N 130°21'05"W to 54°17'58"N 130°22'55"W.
18	2	Edye Passage	A 3 NM arc centered on Table Point. Mariners are encouraged to call at Gull Rocks when entering or exiting Edye Passage.	An arc centered on 54°03'49"N 130°31'55"W; Radius 3 nautical miles bearing from seaward 137° - 233° (T).
19	2	Wales Point	A line joining Wales Point to Maskelyne Point.	A line running from: 54°42'17"N 130°28'33"W to 54°38'55"N 130°26'42"W.
20A	2	Butterworth Rocks	A line from Jacinto Point light to Butterworth Rocks light thence to Seal Rocks light. Mariners shall report routing if not using Brown Passage.	A line running from: 54°34'47"N 131°04'30"W to 54°14'08"N 130°58'30"W, thence 54°00'00"N 130°47'26"W.
20B	Change	Seal Rocks	A line joining Seal Rocks light to Oval Point on Porcher Island.	A line running from: 54°00'00"N 130°47'26"W to 53°56'24"N 130°43'15"W.
21	Change	Rose Spit Seal Rocks	A line joining Rose Spit with Seal Rock light.	A line running from: 54°11'12.5"N 131°38'43"W to 54°00'00"N 130°47'26"W.
22	2	Rose Spit	A line extending 000° (True) from Rose Spit to the International Boundary.	A line running 000° (T) from 54°11'12.5"N 131°38'43"W to the International Boundary.

Number	Sector	Name	General Description and Conditions	Geographic Description
23	2	International Boundary Dixon Entrance	A line following the International Boundary between Alaska, USA and British Columbia, Canada between Cape Muzon light and Wales Island. Mariners shall report whether their route is through Holliday Passage, Oriflamme Passage or Main Passage when transiting Chatham Sound.	A line running from: 54°39'48"N 132°41'30"W to 54°42'06"N 130°31'47"W.
24	2	Zone Limit	A line running from Point Cornwallis light extending on a southwestward arc following the limit of the Territorial Sea to 54°11'00"N 133°28'34.6"W.	A line running from: 54°42'12"N 132°52'17"W; to 54°11'00"N 133°28'34.6"W along the limit of the Territorial Sea.
25	Change	Cape Knox	A line extending 270° (True) from Cape Knox to the limit of the Territorial Sea.	A line running 270° (T) from 54°11'00"N 133°05'00"W; to the limit of the Territorial Sea.
26	1	Tasu Sound	A line extending 220° (True) from Davidson Point light to the limit of the Territorial Sea Mariners shall report at Davidson Point entering or exiting Tasu Sound.	A line running 220° (T) from 52°44'32"N 132°06'42"W to the limit of the Territorial Sea.
27	1	Cape St. James	A line extending 220° (True) from Cape St. James light to the limit of the Territorial Sea.	A line running 220° (T) from 51°56'10"N 131°00'52"W to the limit of the Territorial Sea.
28	1	McInnes Island Cape St. James	A line joining McInnes Island light and Cape St. James light.	A line running from: 52°15'42"N 128°43'13"W to 51°56'10"N 131°00'52"W.
29	1	Cape Mark McInnes Island	A line from Cape Mark light to McInnes Island light.	A line running from: 52°08'59"N 128°32'18"W to 52°15'42"N 128°43'13"W.
30	1	Bonilla Island Sandspit	A line joining Bonilla Island sector light and Sandspit aeronautical beacon.	A line running from: 53°29'34"N 130°38'09"W to 53°15'10"N 131°48'48"W.
31	1	Lawn Point	A 3 NM arc centered on Lawn Point.	An arc centered on 53°25'29.7"N 131°54'50.2"W; Radius 3 nautical miles, bearing from seaward 180° - 000° (T.).
32	1	White Rocks	A line joining Browning Entrance light to Hankin Rock light.	A line running from: 53°38'05"N 130°33'48"W to 53°42'28"N 130°24'36"W.
33	1	Duckers Islands	A line joining Duckers Islands light to Dupont Island light. If northbound, mariners shall report whether route is through Squally Channel or Whale Channel.	A line running from: 52°55'31.4"N 129°11'28.5"W to 52°56'23.3"N 129°26'10.2"W.
34	1	Wilson Rock	A line across Laredo Channel through Wilson Rock.	A line running 232° - 052° (T) through 52°40'00"N 128°57'55"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
35	Change	Triangle Island	A line extending 220° (True) from Triangle Island to the limit of the Territorial Sea.	A line running 220° (T) from 50°52'00"N 129°05'00"W to 50°42'11"N 129°18'00"W.
36	Change	Cape Scott	A line joining Cape Scott light with Triangle Island.	A line running from: 50°46'57"N 128°25'32"W to 50°52'00"N 129°05'00"W

Figure 3-15 - Vessel Traffic Services - Prince Rupert - North - Sector 1


133°W
132°W
131°W
130°W
129°W
128°W
55°N
54°N
53°N
52°N
51°N
50°N
USA
BRITISH COLUMBIA
Pt Cornwallis
Cape Muzon
Jacinto Pt
See Sector 2 Chart
Sector 2
VHF Ch 71
Butterworth Rks
Rose Spit
Seal Rks
Cape Knox
HAIDA GWAII
Sector 1
VHF Ch 11
White Rks
Lawn Pt
Bonilla Is
Sandspit
HECATE STRAIT
Tasu Sd
McInnes Is
Cape Mark
Cape St James
QUEEN CHARLOTTE SOUND
Cape Caution
Triangle Is
Mexicana Pt
Cape Scott
Cape Sutil
PRINCE RUPERT SOUTH VTS ZONE
1A
1B
1C
2
3
4
5
6
7
8
9
10
11
12
24
25
26
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35
36
PRINCE RUPERT
VESSEL TRAFFIC SERVICES
Sector 1
Limit of Reporting Area
Sector Boundary
Calling in Point

Figure 3-16 - Vessel Traffic Services - Prince Rupert - North - Sector 2

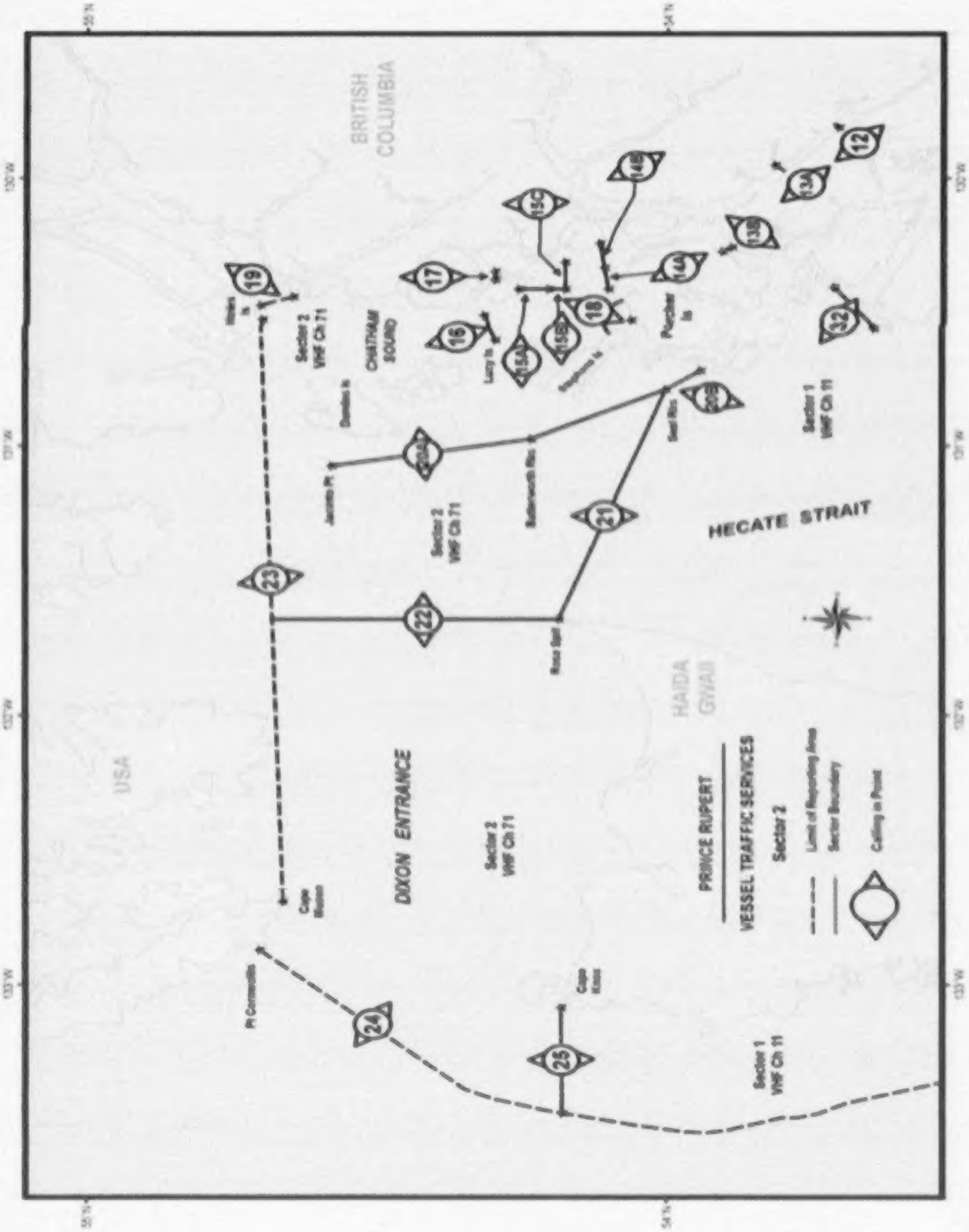

BRITISH COLUMBIA
USA
HAIDA GWAII
DIXON ENTRANCE
HECATE STRAIT
CHATHAM SOUND
Sector 2 VHF Ch 71
Sector 1 VHF Ch 11
PRINCE RUPERT
VESSEL TRAFFIC SERVICES
Sector 2
Limit of Reporting Area
Sector Boundary
Calling in Point
12
13A
13B
14A
14B
15A
15B
15C
16
17
18
19
20A
20B
21
22
23
24
25
32
Pt Cornwallis
Cape Muzon
Cape Knox
Rose Spit
Butterworth Rks
Seal Rks
Dundas Is
Lucy Is
Porcher Is
Jacobs Pt
54°N
55°N
130°W
131°W
132°W
133°W

Table 3-36 - Sectors and Boundaries for Prince Rupert - South

Sector	Boundaries
1	The following describes all Canadian waters which are contained in the Prince Rupert Vessel Traffic Services Zone excluding those United States waters within that portion of the Canada/United States Co-operative Vessel Traffic Management System (CVTMS) administered by the Prince Rupert Vessel Traffic Centre bounded by a line drawn from: 48°28'36"N 124°40'00"W, to 48°34'58"N 124°40'00"W, thence following the shoreline to 48°40'00"N 124°51'00"W, to 48°40'11.5"N 124°51'29"W, thence following the shoreline to 48°43'18"N 125°05'54"W, to 48°47'16"N 125°12'59.5"W thence following the shoreline to 48°53'03"N 125°04'24"W, to 48°56'00"N 125°01'50.5"W thence following the shoreline to 48°56'51"N 125°00'02.5"W to 48°57'28"N 124°59'15"W, thence following the shoreline to 49°14'27"N 124°48'46"W, to 49°14'27"N 124°50'13.5"W thence following the shoreline to 49°04'13.5"N 124°51'16"W, to 49°03'20.5"N 124°51'44"W, thence following the shoreline to 48°59'03"N 124°57'54"W, to 48°58'41"N 124°59'34"W, thence following the shoreline to 48°57'19"N 125°01'50"W, to 48°57'57"N 125°04'50.5"W to 48°59'06"N 125°09'39.5"W to 48°58'48"N 125°10'57"W, thence following the shoreline to 49°00'59.5"N 125°18'39"W, to 49°01'54"N 125°19'26.5"W thence following the shoreline to 48°55'18"N 125°30'29"W, to 48°55'18"N 125°32'06.5"W thence following the shoreline to 49°05'41"N 125°53'18"W, to 49°17'03"N 126°13'44"W, to 49°23'00"N 126°32'34"W, to 49°44'57"N 126°58'54"W, to 49°51'35"N 127°08'56"W, to 49°59'49"N 127°27'06"W, to 50°04'48"N 127°48'47"W, thence following the shoreline to 50°13'14"N 127°47'54"W, to 50°19'28"N 127°58'26"W, thence following the shoreline to 50°21'09"N 127°59'27.5"W to 50°26'38"N 128°02'43.5"W to 50°28'11"N 128°06'05"W, thence following the shoreline to 50°38'23.5"N 128°19'35"W, to 50°40'15"N 128°21'40"W, thence following the shoreline to 50°46'57"N 128°25'32"W, to 50°52'00"N 129°05'00"W, thence following a line 220° (T) to the limit of the Territorial Sea 50°42'11"N 129°18'00"W, thence following the Territorial Sea Boundary south eastward to intersect the International boundary at 48°28'36"N 124°40'00"W, thence a line Northward to the Canadian shoreline at 48°34'58"N 124°40'00"W.

Note: Prince Rupert Traffic monitors navigation in the traffic zone using radar and AIS.

Table 3-37 - Identification and Frequencies for Prince Rupert

Sector	Identifier	Channel	Frequencies (MHz)
1	"Prince Rupert Traffic"	74	156.725

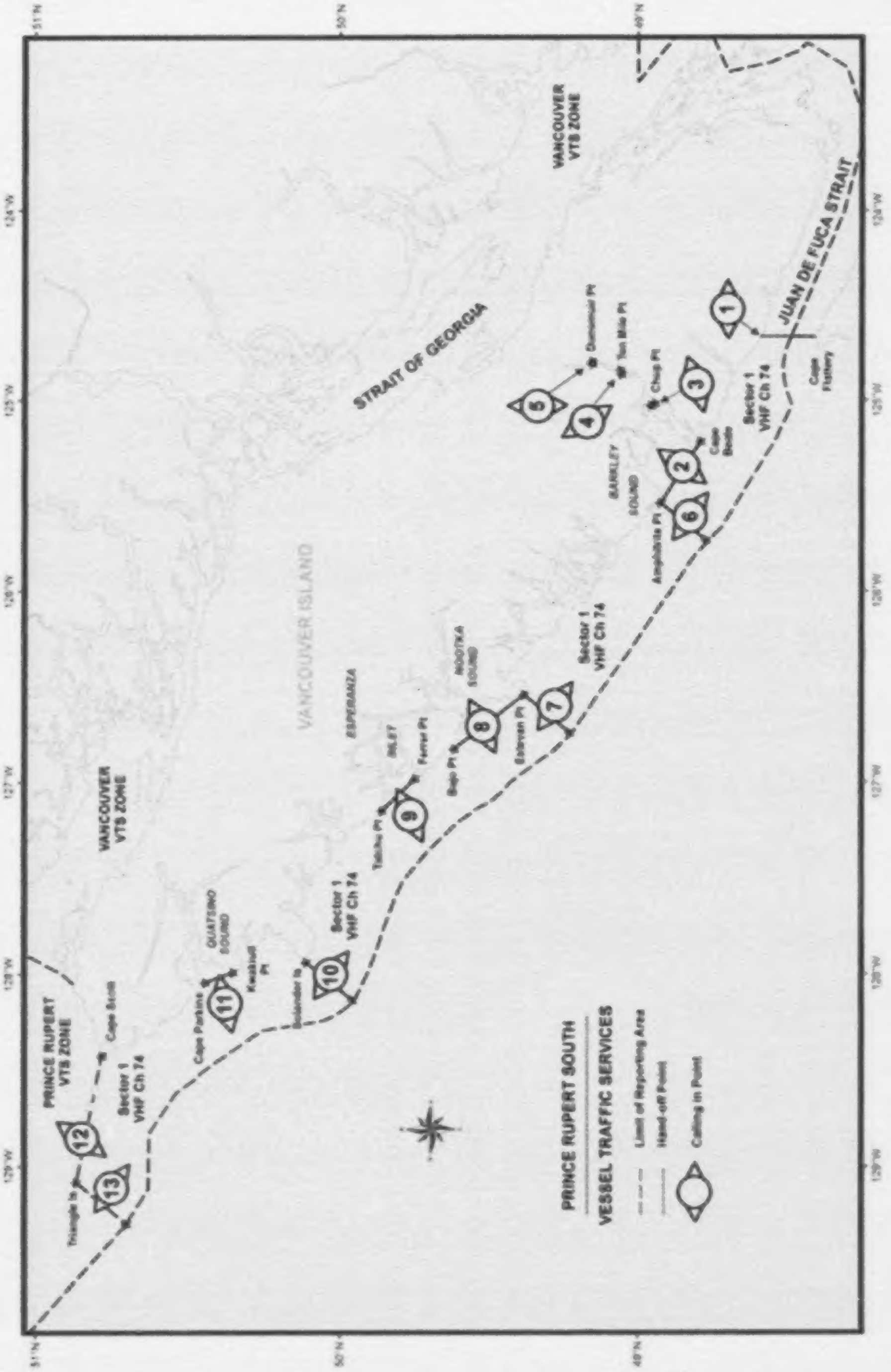
All times shall be given in Pacific Standard Time or Pacific Daylight Saving Time whichever is in effect.

Table 3-38 - Calling-In-Points for Prince Rupert - South

Number	Sector	Name	General Description and Conditions	Geographic Description
1	1	Zone Limit	A line running north along the meridian 124°40'00"W from the International Boundary to the Vancouver Island shoreline. Administered by Seattle and Prince Rupert Traffic (CVTS).	
2	1	Cape Beale	A line joining Cape Beale light with Amphitrite Point light. Mariners shall indicate whether their course is through Trevor Channel, Imperial Eagle Channel or Loudoun Channel.	A line joining: 48°47'13"N 125°12'51"W to 48°55'17"N 125°32'23"W.
3	1	Chup Point.	A line joining Chup Point with Mutine Point.	A line joining: 48°57'20"N 125°01'37"W to 48°56'33"N 125°01'06"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
4	1	Ten Mile Point	A line extending 256° (True) from Ten Mile Point light to the opposite shore of Alberni Inlet.	A line extending 256° (T) from 49°03'34"N 124°50'22"W to 49°03'20.5"N 124°51'44"W.
5	1	Dunsmuir Point	A line extending 090° (True) from Dunsmuir Point light to the opposite shore of Alberni Inlet.	A line extending 090° (T) from 49°09'16"N 124°48'26"W to 49°09'16"N 124°47'42"W.
6	1	Amphitrite Point	A line extending 220° (True) from Amphitrite Point light to the limit of the Territorial Sea.	A line extending 220° (T) from 48°55'17"N 125°32'23"W to 48°46'06"N 125°44'02"W.
7	1	Estevan Point	A line extending 220° (True) from Estevan Point light to the limit of the Territorial Sea.	A line extending 220° (T) from 49°23'00"N 126°32'32"W to 49°13'47"N 126°44'25.5"W.
8	1	Nootka Sound	A line joining Estevan Point light and Bajo Point.	A line joining: 49°23'00"N 126°32'32"W to 49°37'06"N 126°49'35"W.
9	1	Esperanza Inlet	A line joining Ferrer Point and Tatchu Point.	A line joining: 49°44'57"N 126°58'54"W to 49°51'35"N 127°08'56"W.
10	1	Solander Island	A line extending 220° (True) from Solander Island light to the limit of the Territorial Sea.	A line extending 220° (T) from 50°06'40.5"N 127°56'17"W to 49°57'26"N 128°08'16"W.
11	1	Kains Island (Quatsino Sound)	A line joining Kwakiutl Point and Cape Parkins.	A line joining: 50°21'09"N 127°59'27.5"W to 50°26'38"N 128°02'43.5"W.
12	1	Cape Scott Triangle Island	A line extending 281° (True) from Cape Scott light, passing through Cox and Lanz Islands to Triangle Island.	A line extending 281° (T) from 50°46'57"N 128°25'32"W to 50°52'00"N 129°05'00"W.
13	1	Zone Limit	A line extending 220° (True) from Triangle Island to the limit of the Territorial Sea.	A line extending 220° (T) from 50°52'00"N 129°05'00"W to 50°42'11"N 129°18'00"W.

Figure 3-17 - Vessel Traffic Services - Prince Rupert - South - Sector 1


51°N
50°N
49°N
124°W
125°W
126°W
127°W
128°W
129°W
VANCOUVER VTS ZONE
STRAIT OF GEORGIA
JUAN DE FUCA STRAIT
VANCOUVER ISLAND
Ten Mile Pt
Chup Pt
Cape Beale
Cape Flattery
BARKLEY SOUND
Amphitrite Pt
Sector 1 VHF Ch 74
NOOTKA SOUND
Estevan Pt
Ferrer Pt
Bajo Pt
ESPERANZA INLET
Tatchu Pt
QUATSINO SOUND
Kwakiutl Pt
Solander Is
Cape Parkins
Cape Scott
Triangle Is
PRINCE RUPERT VTS ZONE
1
2
3
4
5
6
7
8
9
10
11
12
13
PRINCE RUPERT SOUTH
VESSEL TRAFFIC SERVICES
Limit of Reporting Area
Hand-off Point
Calling in Point

3.9.12 *Victoria*

Table 3-39 - Sectors and Boundaries for Victoria

While identified in some publications as the Vancouver Vessel Traffic Services Zone, this area is managed by the Victoria MCTS Centre.

Sector	Boundaries
1	All Canadian waters north of and included within a line from the shoreline of Vancouver Island at 48°34'58"N 124°40'00"W; southward along the meridian of longitude 124°40'00"W, to a point which intersects the International Boundary; thence following the International Boundary eastward and northward through the waters known as the Strait of Juan de Fuca, Haro Strait, Boundary Passage, and the Strait of Georgia to a point which intersects the Canadian shoreline at 49°00'00"N 123°05'20"W; thence to Roberts Bank light 49°05'16"N 123°18'31.5"W; thence to Sandheads light 49°06'23"N 123°18'04"W; thence to the Iona breakwater light 49°12'18"N 123°15'50"W; thence 270° (T) 6.6 nautical miles to 49°12'18"N 123°25 53"W; thence 000° (T) 8.15 nautical miles to Cape Roger Curtis light 49°20'24"N 123°25'53"W; thence 303° (T) 4.8 nautical miles to Gower Point 49°23'01"N 123°32'06"W; thence following the shoreline to a line joining Reception Point light 49°28'15.9"N 123°53'12"W; to Merry Island light 49°28'03.5"N 123°54'40"W; to Ballenas Island light 49°21'02"N 124°09'32"W; to Cottam Point 49°18'57"N 124°12'45"W.
2	All Canadian waters of the south or main arm of the Fraser River east of the Sandheads light 49°06'23"N 123°18'04"W; to a line running 090° (T) from Shoal Point 49°11'45"N 122°54'51"W, to the opposite south shore.
3	All Canadian waters contained north and east of a line from the Iona breakwater light, 49°12'18"N 123°15'50"W; thence 270° (T) 6.6 nautical miles to 49°12'18"N 123°25'53"W; thence 000° (T) 8.15 nautical miles to Cape Roger Curtis light 49°20'24"N 123°25'53"W; thence 303° (T) 4.8 nautical miles to Gower Point 49°23'01"N 123°32'06"W; including all the waters of Howe Sound and Burrard Inlet.
4	All Canadian waters bounded on the south by a line from Reception Point light, 49°28'15.9"N 123°53'12"W; to Merry Island light 49°28'03.5"N 123°54'40"W; to Ballenas Island light 49°21'02"N 124°09'32"W; to Cottam Point 49°18'57"N 124°12'45"W; and bounded on the north by a line from Cape Sutil 50°52'34.23"N 128°3' 7.24"W to Mexicana Point 50° 54'51.96"N 127°59'58.04"W then to Cape Caution 51°09'50"N 127°47'06"W.

Note: Seattle and Victoria Traffic Sectors 1, 2 and 3 monitor navigation in the traffic zone using radar and AIS. VictoriaTraffic Sector 4 monitors navigation in the traffic zone using AIS.

Table 3-40 - Identification and Frequencies for Victoria

Sector	Identifier	Channel	Frequency (MHz)
1	"Seattle Traffic" (CIP 1, 3, 5, and 8)	05A	156.25
1	"Victoria Traffic"	11	156.55
2	"Victoria Traffic"	74	156.725
3	"Victoria Traffic"	12	156.6
4	"Victoria Traffic"	71	156.575

All times shall be given in Pacific Standard Time or Pacific Daylight Saving Time whichever is in effect.

3.9.12.1 Special Operating Procedures

Outbound Vessels at Brotchie Ledge

Pilots are requested to advise Victoria Traffic of the outbound vessel's ETA for Race Rocks, when possible.

Point Grey / Point Atkinson

Inbound vessels will initiate a broadcast at a line joining Point Grey/Point Atkinson indicating an ETA for First Narrows. (Victoria Traffic will only respond if there is traffic to report.)

Table 3-41 - Calling-In-Points for Victoria

Number	Sector	Name	General Description and Conditions	Geographic Description
1	Change	Zone Limit	A line running north along the meridian 124 40 00W from the International Boundary to the Vancouver Island shoreline. Administered by Seattle and Prince Rupert Traffic (CVTS).	A line running north from 48°28'36"N 124°40'00"W to 48°34'58"N 124°40'00"W.
3	Change	Race Rocks	A line running 090° -270° (True) through Race Rocks light. Administered by Seattle and Victoria Traffic (CVTS).	A line running 090° - 270° (T) through 48°17'54"N 123°31'54"W.
4	1	Buoy "VH"	A line running 000° -180° (True) through buoy "VH".	A line running 000° -180° (T) through 48°22'32"N 123°23'29"W.
5	Change	Hein Bank	A line joining Hein Bank with Cattle Point light, San Juan Island. Administered by Seattle and Victoria Traffic (CVTS).	A line running from: 48°22'00"N 123°02'01"W to 48°27'03"N 122°57'45"W.
6	1	Turn Point	3 NM before reaching Turn Point light.	A circle centered on 48°41'20"N 123°14'10"W, Radius 3 nautical miles.
7	1	East Point	A line joining East Point light, Saturna Island with Patos Island light. Mariners are encouraged to call 3NM from East Point light when entering or exiting Boundary Pass.	A line running from: 48°47'00"N 123°02'42"W to 48°47'24"N 122°58'13"W.
8	Change	Patos Island	A line joining, Patos Island light with Alden Bank light and gong buoy "A". Administered by Seattle and Victoria Traffic (CVTS).	A line running from: 48°47'24"N 122°58'13"W to 48°50'24"N 122°52'32"W.
9	1	At Portlock Point	At Portlock Point.	A line running 090° - 270° (T) through 48°49'41"N 123°21'02"W.
10	1	Peile Point	At Peile Point light.	A line running 045° - 225° (T) through 48°51'00"N 123°24'14"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
11	1	Active Pass	Approaching from the Strait of Georgia, 3NM Northeast of Georgina Point light. Entering Strait of Georgia when clear of Active Pass.	An arc centered on 48°52'24.5"N 123°17'24.5"W Radius 3 nautical miles.
12	Change	Sandheads	At Sandheads light.	A line running 000° - 180° (T) through 49°06'23"N 123°18'04"W.
12A	2	Woodward Island (Crown Forest)	At Woodward Island light at N.E. end of Island.	A line running 000° - 180° (T) through 49°06'23.5"N 123°07'29.5"W.
12B	2	La Farge	At La Farge Cement Plant.	A line running 157° - 337° (T) through 49°09'16.5"N 123°00'15"W.
12C	Change	Shoal Point Zone Limit	At Shoal Point Limit of Sector 2 – Victoria Traffic.	A line running 090° - 270° (T) through 49°11'45"N 122°54'51"W.
13	1	West Porlier Pass	3 NM before entry to or after exit from Porlier Pass.	An arc centered on Virago Rock Sector light LL. 289.3, 49°00'46.5"N 123°35'29.5"W, Radius 3 nautical miles on a line of bearing from seaward 350° - 130° (T).
14	1	East Porlier Pass	3 NM before entry to or after exit from Porlier Pass.	An arc centered on Virago Rock Sector light LL. 289.3, 49°00'46.5"N 123°35'29.5"W, Radius 3 nautical miles on a line of bearing from seaward 180° - 265° (T).
15A	Change	Iona	A line due west of the Iona Breakwater light intersecting with Cape Roger Curtis line (15B).	A line running from: 49°12'18"N 123°15'50"W, to 49°12'18"N 123°25'53"W.
15B	Change	Cape Roger Curtis	A line due south of Cape Roger Curtis intersecting with Iona Breakwater light line (15A).	A line running from: 49°12'18"N 123°25'53"W to 49°20'24"N 123°25'53"W.
15C	Change	Gower Point	A line joining Cape Roger Curtis and Gower Point.	A line running from: 49°20'24"N 123°25'53"W to 49°23'01"N 123°32'06"W.
16	3	Halkett Point	A line joining Halkett Point and the mainland at a point south of Lions Bay.	A line running 090°- 270° (T) from 49°26'43"N 123°19'12"W, to the mainland shoreline.
17	3	Grace Island	A line joining Grace Island light and the mainland at a point south of Langdale.	A line running 090° - 270° (T) from 49°25'50"N 123°26'48"W, to the mainland shoreline.
18	3	Cowan Point Point Atkinson	A line joining Cowan Point light on Bowen Island with Point Atkinson light on the mainland.	A line running from: 49°20'08.5"N 123°21'34.5"W to 49°19'50"N 123°15'48"W.
19	3	Dundarave	2 NM west of Lions Gate Bridge Eastbound only report.	A line running 000° - 180° (T) through buoy "QB" 49°19'02.5"N 123°12'00"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
20	3	Vanterm	A line joining the west end of Vancouver Ocean Terminals with the east end of Burrard Yarrows Corporation Dry Dock. Outbound vessel traffic will be given First Narrows advisory at Vanterm (CIP 20). Vessel traffic departing west of CIP 20 will be given First Narrows advisory on departure. Outbound vessels broadcast position at Burnaby Shoal. An updated traffic advisory will be given as required.	A line running 358° - 178° (T) from 49°17'23"N 123°04'33"W to 49°18'21"N 123°04'37"W.
21	3	Berry Point	A line running 000° -180° (True) from Berry Point light to intersect the opposite north shoreline. Westbound only report.	A line running 000° - 180° (T) from 49°17'43"N 122°59'09"W.
22	3	Roche Point	At Roche Point light.	A line running 000° - 180° (T) through 49°18'02.5"N 122°57'17"W.
23	1	Entrance Island/ Five Fingers Island	A line joining Entrance Island light and Five Fingers Island.	A line running from: 49°12'34"N 123°48'25"W to 49°13'53"N 123°54'52"W.
24	Change	Ballenas Island Merry Island Welcome Passage	A line joining Ballenas Island light and Merry Island light; thence Reception Point light. When northbound, mariners shall indicate whether their route is through Malaspina Strait via Epsom Pt or Welcome Passage, Sabine Channel, Stevens Passage, West of Sisters Island or Ballenas Channel.	A line running from: 49°28'15.9"N 123°53'12"W to 49°28'03.5"N 123°54'40"W to 49°21'02"N 124°09'32"W to 49°18'57"N 124°12'45"W.
25	4	Cape Lazo Powell River	A line joining Cape Lazo light and Powell River Breakwater South Entrance South light. When southbound, mariners shall indicate whether their route is through Malaspina Strait via Epsom Pt or Welcome Passage, Sabine Channel, Stevens Passage, West of Sisters Island or Ballenas Channel.	A line running from: 49°42'24.5"N 124°51'41.5"W to 49°51'36.9"N 124°33'05.7"W.
26	4	Cape Mudge	At Cape Mudge light. If northbound, mariners shall report ETA for Steep Island and Maud Island light.	A line running 090° - 270° (T) through 49°59'56"N 125°11'38"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
27	4	Steep Island	At Steep Island light. If northbound, mariners shall report ETA for Separation Head and update Maud Island light ETA if any change.	A line running 050° - 230° (T) through 50°04'45"N 125°15'06"W.
28	4	Separation Head	At Separation Head. If southbound, mariners shall report ETA for Steep Island and update Maud Island light ETA if any change.	A line running 090° - 270° (T) through 50°10'51"N 125°21'02"W.
29	4	Cinque Island	At Cinque Island light. If southbound, mariners shall report ETA for Separation Head and Maud Island light.	A line running 090° - 270° (T) through 50°17'44"N 125°23'59.5"W.
30	4	Ripple Point	Ripple Point light.	A line running 000° - 180° (T) through 50°22'05"N 125°34'42"W.
31	4	Vansittart Point	Vansittart Point light.	A line running 000° - 180° (T) through 50°22'37"N 125°44'31"W.
32	4	Fanny Island	Fanny Island light.	A line running 045° - 225° (T) through 50°27'13"N 125°59'30"W.
33	4	Boat Bay	Boat Bay light.	A line running 000° - 180° (T) through 50°31'11"N 126°34'37"W.
34	4	Lizard Point	Lizard Point light. When northbound at Lizard Point, mariners shall indicate whether their route is through Goletas Channel, Gordon Channel, Ripple Passage or Richards Channel.	A line running 045° - 225° (T) through 50°40'17.5"N 126°53'36"W.
35	4	Lewis Point	Lewis Point light.	A line running 000° - 180° (T) through 50°33'07"N 126°51'10"W.
36	4	Pulteney Point	3 NM north of Pulteney Point light. When southbound, call 3NM before Pulteney Point light. When northbound, call at Pulteney Point light, mariners shall indicate whether their route is through Goletas Channel, Gordon Channel, Ripple Passage or Richards Channel.	An arc centered on 50°37'51"N 127°09'12"W, Radius 3 nautical miles.
37	4	Doyle Island	Doyle Island light.	A line running 045° - 225° (T) through 50°48'20"N 127°27'32"W.
38	4	Pine Island	Pine Island light.	A line running 045° - 225° (T) through 50°58'33"N 127°43'35"W.

Number	Sector	Name	General Description and Conditions	Geographic Description
39	Change	Cape Caution Cape Sutil	A line from Cape Caution light to Mexicana Point thence to Cape Sutil. When southbound at Cape Caution, mariners shall indicate whether their route is through Scott Channel, Goletas Channel (Nahwitti Bar), Gordon Channel (Pine Island), Bolivar Passage, Ripple Passage or Richards Channel.	A line running from: 51°09'50"N 127°47'06"W to 50°54' 51.96"N 127°59'58.04"W to 50°52'34.23"N 128°3'7.24"W.

Figure 3-18 - Vessel Traffic Services - Vancouver - Sector 1

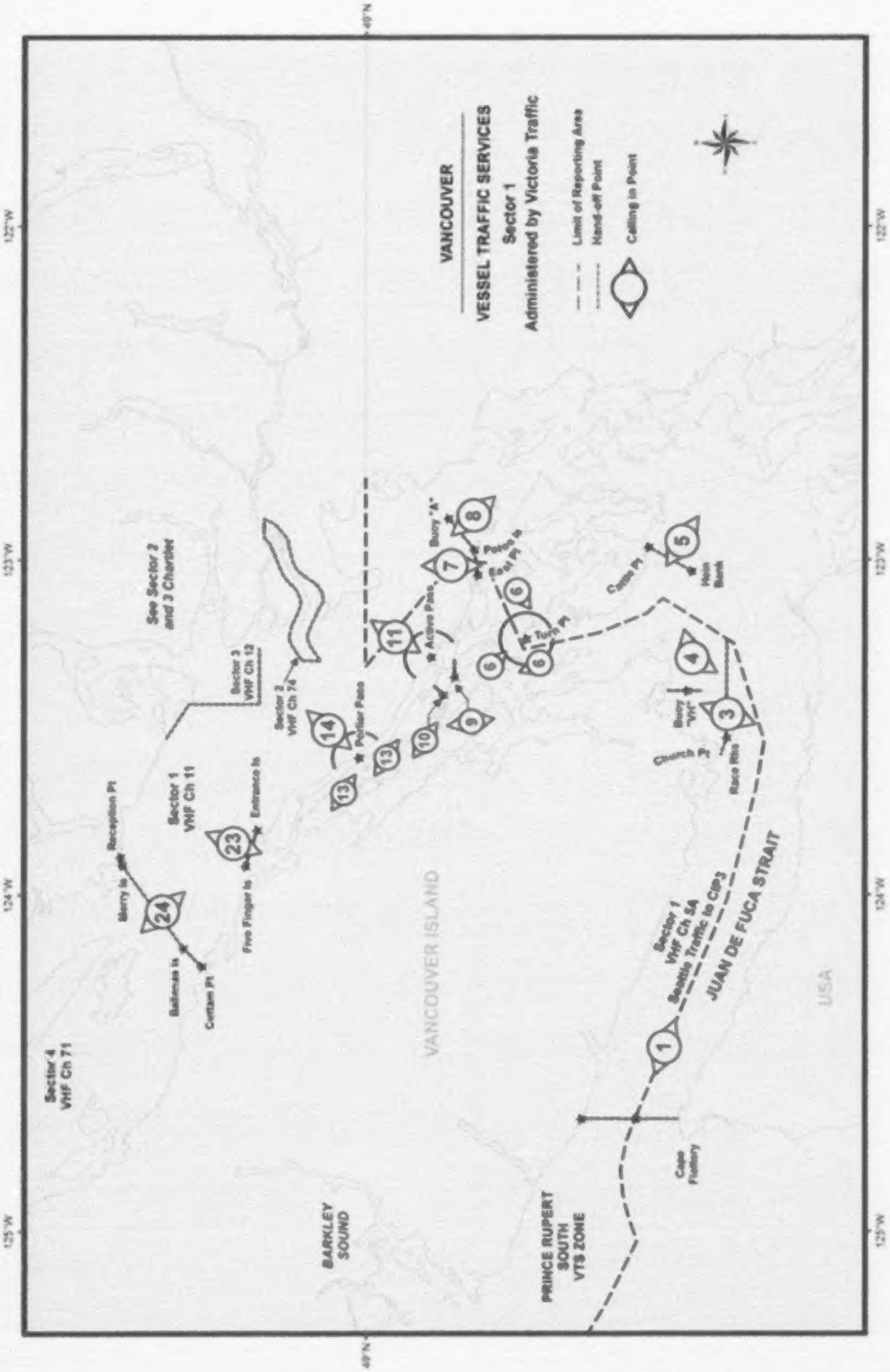

49°N
122°W
123°W
124°W
125°W
VANCOUVER
VESSEL TRAFFIC SERVICES
Sector 1
Administered by Victoria Traffic
Limit of Reporting Area
Hand-off Point
Calling in Point
See Sector 2 and 3 Chartlet
Sector 3 VHF Ch 12
Sector 2 VHF Ch 74
Sector 1 VHF Ch 11
Sector 4 VHF Ch 71
Sector 1 VHF Ch 5A
Seattle Traffic to CIP3
Buoy "A"
Pender Is
East Pt
Active Pass
Porlier Pass
Turn Pt
Cattle Pt
Hein Bank
Buoy "VH"
Church Pt
Race Rks
Reception Pt
Merry Is
Ballenas Is
Cottam Pt
Five Finger Is
Entrance Is
Cape Flattery
JUAN DE FUCA STRAIT
VANCOUVER ISLAND
USA
BARKLEY SOUND
PRINCE RUPERT SOUTH VTS ZONE
1
3
4
5
6
6
6
7
8
9
10
11
13
13
14
23
24

Figure 3-19 - Vessel Traffic Services - Vancouver - Sector 2 and 3

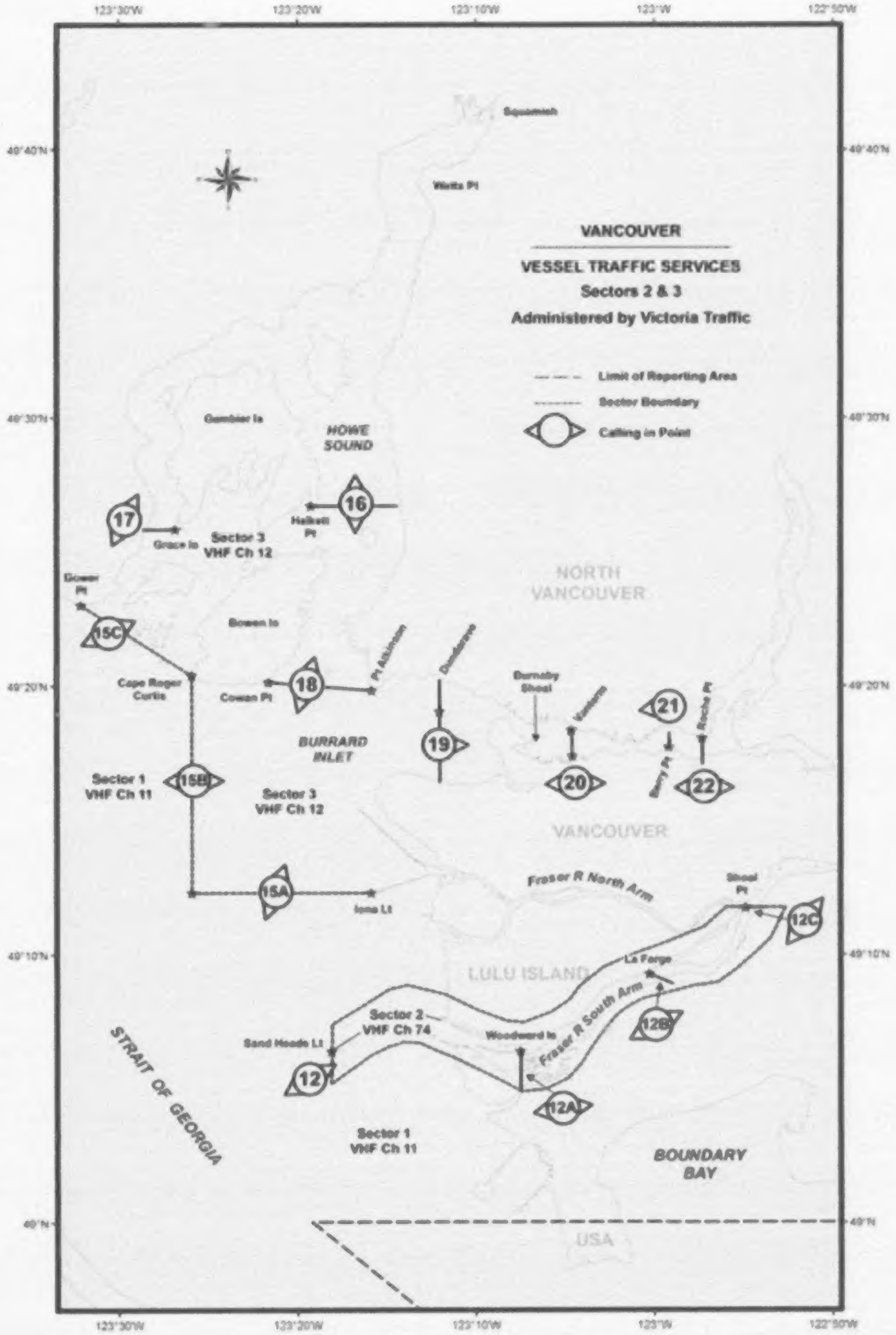
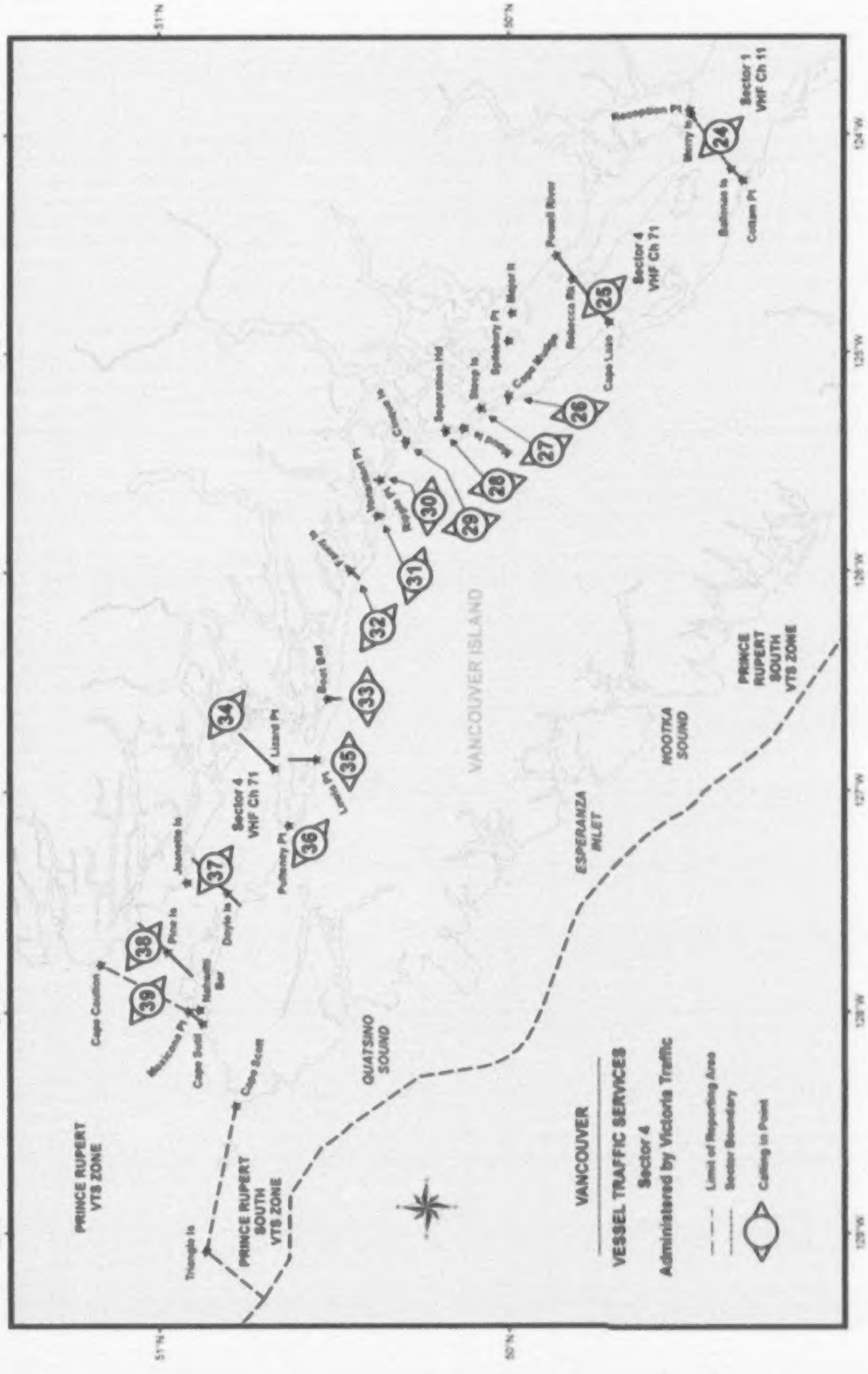

123°30'W
123°20'W
123°10'W
123°W
122°50'W
49°40'N
49°30'N
49°20'N
49°10'N
49°N
Squamish
Watts Pt
VANCOUVER
VESSEL TRAFFIC SERVICES
Sectors 2 & 3
Administered by Victoria Traffic
Limit of Reporting Area
Sector Boundary
Calling in Point
Gambier Is
HOWE SOUND
16
Halkett Pt
17
Grace Is
Sector 3
VHF Ch 12
Gower Pt
15C
Bowen Is
NORTH VANCOUVER
Pt Atkinson
Dundarave
Cape Roger Curtis
Cowan Pt
18
Burnaby Shoal
Vanterm
21
Roche Pt
Berry Pt
19
20
22
BURRARD INLET
Sector 1
VHF Ch 11
15B
Sector 3
VHF Ch 12
VANCOUVER
Fraser R North Arm
Shoal Pt
15A
Iona Lt
12C
LULU ISLAND
La Farge
Fraser R South Arm
Sector 2
VHF Ch 74
Sand Heads Lt
Woodward Is
12B
12
12A
STRAIT OF GEORGIA
Sector 1
VHF Ch 11
BOUNDARY BAY
USA

Figure 3-20 - Vessel Traffic Services - Vancouver - Sector 4


51°N
50°N
124°W
125°W
126°W
127°W
128°W
129°W
Sector 1
VHF Ch 11
Reception Pt
Merry Is
24
Ballenas Is
Cottam Pt
Powell River
Sector 4
VHF Ch 71
25
Rebecca Rk
Cape Lazo
Spilsbury Pt
Separation Hd
26
27
28
29
30
31
32
33
Boat Bluff
34
Lizard Pt
35
36
Pulteney Pt
Sector 4
VHF Ch 71
37
Jeanette Is
Doyle Is
38
Pine Is
Nahwitti Bar
39
Cape Caution
Cape Sutil
Cape Scott
Triangle Is
PRINCE RUPERT
VTS ZONE
PRINCE RUPERT
SOUTH
VTS ZONE
QUATSINO
SOUND
VANCOUVER ISLAND
ESPERANZA
INLET
NOOTKA
SOUND
PRINCE
RUPERT
SOUTH
VTS ZONE
VANCOUVER
VESSEL TRAFFIC SERVICES
Sector 4
Administered by Victoria Traffic
Limit of Reporting Area
Sector Boundary
Calling-in Point

PART 4 GENERAL

4.1 PROCEDURES

4.1.1 *Radiotelephone Procedures*

4.1.1.1 General

In the interest of safe navigation, and especially during bad weather conditions, masters should ensure that a continuous listening watch is maintained on 2182 kHz. Where practicable, and having due regard for Vessel Traffic Services and Seaway Control requirements, a listening watch should be maintained on VHF Ch16 (156.8 MHz).

2182 kHz and Ch16 (156.8 MHz) shall only be used for distress, urgency and safety communications and for calling purposes. The class of emission to be used for radiotelephony on the frequency 2182 kHz shall be J3E.

Initial calls must be made directly on the safety and calling frequency 2182 kHz. This procedure is required because the MCTS Centres do not monitor MF working frequencies.

Make initial calls on any of the VHF working frequencies shown in the “Receiving” column of the MCTS Centre listing. The MCTS Centre will then respond on the corresponding frequency shown in the “Transmitting” column. It is necessary to indicate the channel number on the initial call because MCTS officers guard multiple frequencies simultaneously. Before making a call directly on a working frequency, listen for a period long enough to ensure that the channel is not in use. Follow this procedure for radio checks.

If difficulty is experienced in establishing contact with the MCTS Centre, or if contact is desired with another vessel, the initial call may be made on the calling frequency Ch16 in which case the station called will reply on the same frequency. As soon as communication has been established a change must be made to an agreed working frequency and all further communications made on that frequency.

Masters of compulsorily-fitted ships are reminded that a radio log of all distress and urgency communications and safety communications pertaining to their own ship should be kept and maintained onboard their vessels.

4.1.1.2 The following examples will illustrate the procedure to be used

Table 4-1 - Initial Call When a Vessel is Attempting to Establish Communication on a Working Frequency with a Specific Station

Item	Spoken
Name of station called (spoken three times).	PRESCOTT COAST GUARD RADIO
The words "THIS IS".	THIS IS
Type, name, radio call sign of vessel calling (spoken three times).	STEAMER FAIRMOUNT CYLD
and Channel	CHANNEL 26
Invitation to reply	OVER

Table 4-2 - Initial Call When a Vessel Wishes to Establish Communications with any Station within Range (or within a certain area)

Item	Spoken
General call (spoken three times).	ALL STATIONS (or ALL SHIPS IN JOHNSTONE STRAITS)
The words "THIS IS".	THIS IS
Type, name and radio call sign of vessel calling (spoken three times).	TANKER IMPERIAL CORNWALL/VCVC
Invitation to reply.	OVER

When a station wishes to broadcast information rather than to establish communication, it proceeds with the message instead of giving the invitation to reply.

A radio message from a ship consists of several parts which shall be transmitted on the working frequency in the following order:

a) type, name and radio call sign of the originating ship;

b) the date and time the message originated. (preferably in UTC. Daylight Saving Time shall not be used). [date and time may be sent as one group, the first two figures indicate the date, the last four the time];

c) the address;

d) the text or body of the message;

e) the signature.

Note: Items a) and b) taken together, are known as the "preamble".

Table 4-3 - Example of a Ship to Shore Radio Message

Item	Spoken
Message	FROM M/V WEST WIND, CALL SIGN V2AG
Filed	071225UTC
Address	ECAREG CANADA
Text	SECURED SYDNEY GOVERNMENT WHARF
Signature	MASTER

An acknowledgment of receipt of a message shall not be given until the receiving operator is certain that the transmitted information has been received correctly.

While it is not practical to lay down precise words and phrases for all radiotelephone procedures, the following should be used where applicable.

Table 4-4 - Practical Terms

Terms	Meaning
ACKNOWLEDGE	Let me know that you have received and understood this message.
CORRECTION	An error has been made in this transmission. The correct version is.....
GO AHEAD	Proceed with your message.
OVER	My transmission is ended and I expect a response from you.
OUT	This conversation is ended and no response is expected.
READ BACK	After I have given OVER, repeat all the message back to me exactly as received.
ROGER	I have received all of your last transmission.
RECEIVED NUMBER	Receipt of your message number..... is acknowledged.
STAND BY	Wait until you hear further from me.
VERIFY	Check with the originator and send the correct version.
WORDS TWICE	As a request - Please send each word twice. As information - I will send each word twice.

4.1.1.3 Phonetic Alphabet

When it is necessary to spell out call signs, service abbreviations and words whose spelling might be misinterpreted, the following letter spelling table should be used:

A - ALFA
B – BRAVO
C - CHARLIE
D - DELTA
E - ECHO
F - FOXTROT
G - GOLF
H - HOTEL
I - INDIA
J - JULIET
K - KILO
L – LIMA
M - MIKE
N - NOVEMBER
O - OSCAR
P - PAPA
Q - QUEBEC
R – ROMEO
S - SIERRA
T - TANGO
U - UNIFORM
V - VICTOR
W – WHISKEY
X - X-RAY
Y – YANKEE
Z - ZULU

4.1.1.4 Times

Times are expressed in four figures, the first two denoting the hour and the last two the minutes, the day starting at midnight with 0000 and ending at 2400. The standard of time (e.g. UTC) is stated at the head of the appropriate column, or against the figures involved.

4.1.1.5 Time Zone Comparison

NST	Newfoundland Standard Time
AST	Atlantic Standard Time
EST	Eastern Standard Time
CST	Central Standard Time
MST	Mountain Standard Time
PST	Pacific Standard Time

To convert from Coordinated Universal Time to Local Standard Time look opposite UTC under the appropriate column. For corresponding Daylight Saving Time, add one hour.

Table 4-5 - Time Zone Comparison

UTC	NST	AST	EST	CST	MST	PST
00:00	20:30	20:00	19:00	18:00	17:00	16:00
01:00	21:30	21:00	20:00	19:00	18:00	17:00
02:00	22:30	22:00	21:00	20:00	19:00	18:00
03:00	23:30	23:00	22:00	21:00	20:00	19:00
04:00	00:30	00:00	23:00	22:00	21:00	20:00
05:00	01:30	01:00	00:00	23:00	22:00	21:00
06:00	02:30	02:00	01:00	00:00	23:00	22:00
07:00	03:30	03:00	02:00	01:00	00:00	23:00
08:00	04:30	04:00	03:00	02:00	01:00	00:00
09:00	05:30	05:00	04:00	03:00	02:00	01:00
10:00	06:30	06:00	05:00	04:00	03:00	02:00
11:00	07:30	07:00	06:00	05:00	04:00	03:00
12:00	08:30	08:00	07:00	06:00	05:00	04:00
13:00	09:30	09:00	08:00	07:00	06:00	05:00
14:00	10:30	10:00	09:00	08:00	07:00	06:00
15:00	11:30	11:00	10:00	09:00	08:00	07:00
16:00	12:30	12:00	11:00	10:00	09:00	08:00
17:00	13:30	13:00	12:00	11:00	10:00	09:00
18:00	14:30	14:00	13:00	12:00	11:00	10:00
19:00	15:30	15:00	14:00	13:00	12:00	11:00
20:00	16:30	16:00	15:00	14:00	13:00	12:00
21:00	17:30	17:00	16:00	15:00	14:00	13:00
22:00	18:30	18:00	17:00	16:00	15:00	14:00
23:00	19:30	19:00	18:00	17:00	16:00	15:00

4.1.1.6 Time Signals

Canada's official time is the responsibility of the National Research Council's Institute for National Measurement Standards, Ottawa, ON. Its short wave radio station CHU, with transmitters located at 45º17'47"N 075º45'22"W is equipped with vertical antennas to give the best possible coverage to the maximum number of Canadian users. The signal is transmitted continuously on 3330 kHz, 7850 kHz and 14670 kHz, upper single-sideband H3E (AM compatible). A cesium atomic clock generates the carrier frequencies (accurate to a part in 10^{-11}) and the UTC seconds pulses (accurate to 50 microseconds). The start of each UTC second is marked by the start of 300 cycles of a 1000 Hz tone, with certain omissions and identifications. Every half-minute is marked by omitting the preceding tone (for second 29). In the 9 seconds preceding each minute, the second pulses are shortened to "ticks" to provide a window for the voice announcement, followed by a longer tone. The start of this tone marks the exact minute given by the announcement. This tone is one-half second long, except for the exact hour - when it is one full second long and in this case only is followed by 9 seconds of silence.

The bilingual voice announcement which is heard each minute takes the form:

"CHU Canada - Coordinated Universal Time -- hours -- minutes -- heures -- minutes" for even minutes,

and

"CHU Canada - Temps Universel Coordonné -- heures -- minutes -- hours -- minutes" for odd minutes.

A small number of the longer time announcements use the abbreviation "UTC" rather than the full form.

Following international practice, Canada's official time is based on Coordinated Universal Time (UTC) which is kept within one second of UT1, the time on the Greenwich meridian as used for celestial navigation. Users interested in the ultimate accuracy of celestial navigation can determine UT1 with an accuracy of 0.1 seconds by decoding the difference DUT1 = UT1 - UTC, as transmitted by CHU in the internationally accepted code. The number of tenths of a second of DUT1 can be decoded by counting the number of emphasized second pulses that follow each minute. If the emphasized pulses occur for any of the seconds 1 to 8, DUT1 is positive; if the emphasized pulses occur for any of the seconds 9 to 16, DUT1 is negative. CHU emphasizes second pulses by splitting them (0.1 s of tone, 0.1 s of silence, 0.1 s of tone) so that a double tone is heard.

4.1.2 *Distress Communications in Radiotelephony*

4.1.2.1 Early Notification of Search and Rescue Authorities of Developing Situations

In the interest of ensuring the highest level of safety, mariners should immediately notify the Canadian Coast Guard, through any MCTS Centre of any situation which is or may be developing into a more serious situation requiring assistance from the Search and Rescue (SAR) System. The need for the earliest possible alerting of SAR Authorities to potential maritime emergencies cannot be over-emphasized.

This advice is given in accordance with IMO Circular MSC/Circ.892 and similar advice found in the ICAO/IMO International Aeronautical and Maritime SAR (IAMSAR) Manual Volume III. Further, there have been similar recommendations arising from serious SAR cases in the Canadian SAR Region where masters have failed to provide this notice until after the situation deteriorated.

This notification allows SAR authorities to carry out preliminary and contingency planning that could make a critical difference if the situation worsens. Time lost in the initial stages of a SAR mission may be crucial to its eventual outcome.

It is always best to consider the worst-case scenario and to alert SAR authorities accordingly. This notification places no obligations upon the master except to advise the CCG when the situation has been corrected.

Canadian MCTS Centres provide coverage of all marine distress frequencies, however, each centre does not necessarily guard each frequency (refer to centre listings Part 2). MCTS provides communications between the JRCC/MRSC and the vessel or vessels concerned with the distress.

The radiotelephone distress frequencies are:

a) 2182 kHz on medium frequency (MF) band;

b) 156.8 MHz (Ch 16) on very high frequency band (VHF); and

c) any other available frequency on which attention might be attracted if transmissions on 2182 kHz and 156.8 MHz are not possible or successful.

The digital selective calling (DSC) frequencies are:

a) Ch 70 in the VHF band;
b) 4207.5 kHz;
c) 6312.0 kHz;
d) 8414.5 kHz;
e) 12577 kHz; and
f) 16804.5 kHz in the High Frequency (HF) bands.

When another craft or person is in distress:

a) all transmissions capable of interfering with the distress traffic must be stopped;
b) attention must be concentrated on the distress communications and all information possible intercepted; and
c) a station in the vicinity of the distressed craft must acknowledge receipt of the distress message if received, giving its own position in relation to that of the craft in distress and stating the action being taken.

Distress communications consist of the:

a) distress Alert (when using VHF or HF DSC);
b) distress Signal;
c) distress Call;
d) distress Message; and
e) distress Traffic.

Transmission of a DSC Distress Alert, a Distress Signal and/or a Distress Call announces that the ship, aircraft, other vehicle, or person that is making the transmission is:

a) threatened by serious and imminent danger and requires immediate assistance; or
b) aware of another ship, aircraft, other vehicle, or person threatened by serious and imminent danger and requires immediate assistance.

Distress communications should be repeated by the craft in distress until an answer is heard.

The DSC Distress Alert will automatically switch marine radios to the associated distress frequency for the subsequent transmission of the distress signal, the distress call and the distress message.

4.1.2.2 The Alarm Signal

The radiotelephone Alarm Signal consists of the continuous alternate transmission of two audio tones of different pitch for a period of at least thirty seconds but not to exceed one minute. The sound of this tone is similar to that used by some ambulances.

The Alarm Signal is used by Canadian MCTS Centres to alert ships:

a) that a mayday relay broadcast is about to follow; or
b) that a Tsunami warning, preceded by the Urgency Signal (PAN PAN) is about to follow; or
c) that the transmission of an urgent cyclone warning, preceded by the Safety Signal (SÉCURITÉ), is about to follow.

4.1.2.3 The Distress Signal

The Distress Signal consists of the word "MAYDAY".

The Distress Call consists of:

a) the word "MAYDAY" (spoken three times);
b) the words "THIS IS" followed by;
c) the name of the ship in distress (spoken three times);
d) the call sign or other identification;
e) the ship's MMSI (if a DSC distress alert has been sent).

The Distress Call:

a) should not be addressed to a particular coast radio station or ship; and
b) has absolute priority over all other transmissions and all coast radio stations and ships that hear this call must cease any transmissions that will interfere with it and must listen on the frequency used for this call.

The Distress Message consists of:

a) the word "MAYDAY";
b) the name of the ship in distress;
c) the call sign or other identification;
d) the ship's MMSI (if a DSC distress alert has been sent);
e) the position of the ship in distress;
f) the nature of the distress;
g) the kind of assistance needed;
h) any other useful information which might assist the rescue; and
i) the word "OVER", which is an invitation to acknowledge and reply.

The DSC Distress Alert Acknowledgement to an "All Stations" DSC Distress Alert shall normally be made by a MCTS Centre.

Ship stations may acknowledge receipt of a DSC Distress Alert by radiotelephony on the associated distress and calling frequency after a MCTS Centre has had time to initiate contact with the vessel in distress.

4.1.2.4 Distress Traffic

Distress Traffic consists of all messages about the immediate assistance required by the ship in distress. Prior to the transmission of any Distress Traffic, the Distress Signal "MAYDAY" must be sent once before the call. The control of Distress Traffic is the responsibility of the ship in distress or of the ship or coast radio station sending a Distress Message.

A mobile station that learns that another mobile station is in distress may transmit the distress message if:

a) the station in distress cannot transmit it;
b) the master or person responsible for the craft carrying the station which intervenes believes that further help is necessary; and
c) although not in a position to render assistance, it has heard a distress message which has not been acknowledged.

In the above situation the distress message relay takes the following form:

a) the radiotelephone Alarm Signal, if possible;
b) the words "MAYDAY RELAY" (spoken three times);
c) the words "ALL STATIONS" or a specific MCTS Centre, as appropriate (spoken three times);
d) the words "THIS IS";
e) the name of the mobile station repeating the distress message (spoken three times);
f) the call-sign or other identification of the mobile station repeating the distress message;
g) the MMSI of the mobile station repeating the distress message (if the initial distress alert was sent by DSC);
h) the repetition of the distress message; and
i) the word, "OVER".

When Distress Traffic has ceased or when silence is no longer necessary the station that has controlled the Distress Traffic must transmit a message on the distress frequency advising that the distress traffic has ceased.

a) the word "MAYDAY";
b) the words "ALL STATIONS" (spoken three times);
c) the words "THIS IS";
d) the name of the station which has controlled the distress traffic (spoken three times);
e) the call-sign or other identification of the station which has controlled the distress traffic;
f) the current Coordinated Universal Time (UTC);
g) the MMSI (if the initial distress alert was sent by DSC) and the name and call sign of the ship that was in distress and a brief description of the resolution of the distress;
h) the words "SEELONCE FEENEE"; and
i) the word "OUT".

4.1.2.5 Distress Procedure Example

Initiate a VHF or HF DSC Distress Alert.

Then, on the associated distress and calling frequency, the following distress call and distress message should be spoken slowly and distinctly:

Table 4-6 - Example of a distress call/message

Item	Spoken
Distress Signal	"MAYDAY" (three times)
The words	"THIS IS"
Name of ship	"Nonsuch" (three times)
MMSI number	"316010115" (if initial distress alert was sent by DSC)
Distress Signal	"MAYDAY"
Name of ship	"Nonsuch"
MMSI number	"316010115" (if initial distress alert was sent by DSC)
Position	"Off Iles-St-Marie"
Nature of distress	"Struck rock and taking on water"
Assistance needed	"Require help to abandon ship"
Other useful information	"5 persons on board"
Invitation to acknowledge and reply	"OVER"

4.1.3 *Urgency Communications*

The DSC Urgency Announcement will automatically switch marine radios to the associated distress frequency for the subsequent transmission of the urgency signal, the urgency call and the urgency message.

The **Urgency Signal** consists of the words "PAN PAN".

The **Urgency Call** consists of:

a) the words "PAN PAN" (spoken three times);
b) the words "ALL STATIONS" or station specific call (spoken three times);
c) the words "THIS IS" followed by;
d) the name of the station making the call (spoken three times);
e) the call-sign or other identification; and
f) the ship's MMSI (if the initial Urgency announcement was sent by DSC).

The urgency signal may be transmitted only on the authority of the master or the person responsible for the ship, aircraft or other vehicle carrying the mobile station.

The urgency signal indicates that the calling station has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or the safety of a person.

The urgency signal, the urgency call, and the urgency message shall be sent on the distress frequencies 2182 kHz and Ch16 (156.8 MHz). If transmission on these frequencies is impossible, any other available frequency on which attention might be attracted should be used.

The urgency signal has priority over all other communications, except distress, and all stations which hear it must take care not to interfere with the transmission of the message which follows the urgency signal.

Stations which hear the urgency signal must continue to listen for at least three minutes. At the end of this period, if no urgency message has been heard, normal service may be resumed. However, stations which are in communication on frequencies other than those used for transmission of the urgency signal may continue their normal work without interruption provided the urgency message is not addressed "to all stations".

The DSC Urgency Acknowledgement to an "All Stations" DSC Urgency Announcement shall normally be made by a MCTS Centre. Ship stations may acknowledge, by radiotelephony, the receipt of a DSC Urgency Announcement on the associated distress and calling frequency after a MCTS Centre has had time to initiate contact with the vessel in distress.

4.1.4 *Safety Communications*

The Safety Signal consists of the word "SÉCURITÉ".

The Safety Call consists of:

a) the word "SÉCURITÉ" (spoken three times);
b) the words "ALL STATIONS" (spoken three times);
c) the words "THIS IS", followed by;
d) the name of the station making the call (spoken three times);
e) the call-sign or other identification;
f) the station's MMSI (if the initial Safety announcement was sent by DSC);
g) a brief description of the context of the "Safety Message";
h) the channel or frequency for the Safety broadcast; and
i) the word "OUT".

The safety signal indicates that the station is about to transmit an important navigational or meteorological warning. The safety message should be sent on a working frequency, which is announced at the end of the call.

The safety call is transmitted on the distress frequencies 2182 kHz and Ch16 (156.8 MHz). If transmission on these frequencies is impossible, any other available frequency on which attention might be attracted shall be used.

A ship station which receives an "All Stations" DSC Safety Announcement shall not acknowledge receipt.

All stations hearing the safety signal shall shift to the working frequency indicated in the call and listen to the safety message until satisfied it does not concern them.

The **Safety Message** format consists of:

a) the word "SÉCURITÉ";
b) the words "ALL STATIONS" (spoken three times);
c) the words "THIS IS", followed by;
d) the name of the station making the call (spoken three times);
e) the call sign or other identification of the transmitting station;

f) the MMSI of the transmitting station (if the initial announcement was sent by DSC);

g) the details of the safety message;

h) the word "OUT".

4.1.4.1 Safety Communications in Athabasca – Mackenzie Watershed Area

DISTRESS, URGENCY, SAFETY COMMUNICATIONS – USE OF 5803 kHz

The frequency 5803 kHz is the distress and calling frequency for the Athabasca – Mackenzie inland waterways. This frequency should be carried on all commercial vessels and should be monitored at all times when the vessel is in active operation on the waterways.

This frequency will not be used for any type of communication other than distress, urgency and safety communications and for the purpose of establishing initial radio contact with another vessel or shore station. After initial contact is made, for other than distress or emergency communication, the vessel and/or shore station involved will immediately transfer to an established working frequency.

For the provision of relay or assistance in communication to a land station or other vessel, the CCG will provide, during the shipping season, 24 hour receive and transmit facilities on 5803 kHz from Iqaluit MCTS/VFF.

4.1.5 *Aids to Navigation*

4.1.5.1 Positions

All positions expressed in latitude and longitude of the radio aids to navigation listed in this publication are approximate and are taken from the largest scale Canadian Hydrographic Service charts, where available, or British Admiralty charts of the vicinity. Mariners should bear in mind when plotting the position of any given aid that it is preferable to use a chart with the aid already located on it than to plot it from a position given in latitude and longitude.

4.1.5.2 Reporting Abnormal Operation of Radio Aids

A marine radio aid observed to be operating abnormally should be reported, as soon as possible to a MCTS Centre.

Reports shall be as complete as possible, giving full details including time, date, the position from which the observation was made, and details and description of conditions, such as weather and reception, prevailing at the time of the observation.

It is also requested that ships report abnormal MCTS Centre operation, such as poor quality of marine telephone calls, unreadability of broadcasts, failure to answer calls, etc.

To ensure prompt corrective action, such reports must include the date, time and position of ship when the observation was made, together with details of prevailing weather and reception conditions.

4.1.5.3 Radio Beacons

Marine radio beacons generally operate in the 285-325 kHz. Radio beacon service enables ships fitted with direction finding equipment to take a bearing or to take several consecutive bearings which will provide a fix. See Part 2 for details on individual listings.

4.1.5.4 Radar Beacons (RACONS)

Radar beacons (Racons) may be established at lighthouses, on buoys or at other specific charted locations ashore or afloat to enhance identification and detection range of these features by radar.

Some Racons operate only in the X band 9320-9500 MHz, whilst others are dual band X/S, X band plus S band of 2920-3100 MHz. It should also be noted that the slow sweep (SS) type of Racon will give a response every 72-120 seconds, whilst the Frequency Agile Racon (FAR) will respond more frequently.

The Racon signal appears on the radar display as a line commencing at the approximate range of the Racon and extending outwards along its line of bearing from the ship toward the limit of the display. The signal displayed may be a solid line or it may be broken into a code consisting of a series of dots and dashes as shown in relevant publications.

4.2 SYSTEMS

4.2.1 *Global Maritime Distress and Safety System in Canada (GMDSS)*

4.2.1.1 What is GMDSS?

The Global Maritime Distress and Safety System (GMDSS) is an international system using improved terrestrial and satellite technology and ship-board radio systems. It ensures rapid alerting of shore-based rescue and communications authorities in the event of an emergency. In addition, the system alerts vessels in the immediate vicinity and provides improved means of locating survivors.

GMDSS was developed through the International Maritime Organization (IMO) and represents a significant change in the way maritime safety communications are conducted. While it is mandatory for all ships subject to the *International Convention for the Safety Of Life At Sea (SOLAS)* (cargo ships 300 gross tons or greater and all passenger vessels, on international voyages), GMDSS will impact on all radio-equipped vessels, regardless of size. All SOLAS ships are required to fully comply with GMDSS.

4.2.1.2 Why GMDSS?

GMDSS was developed to **SAVE LIVES** by modernizing and enhancing the current radiocommunications system. By utilizing satellite and digital selective calling technology, GMDSS provides a more effective distress alerting system. It improves the current system by:

a) increasing the probability that an alert will be sent when a vessel is in distress;
b) increasing the likelihood that the alert will be received;
c) increasing the ability to locate survivors;
d) improving rescue communications and coordination; and
e) providing mariners with vital maritime safety information.

4.2.1.3 Maritime Safety Information (MSI)

Maritime Safety Information broadcasts, which comprise navigational and meteorological warnings, meteorological forecasts and other safety-related messages can be received in four different ways in GMDSS:

a) NAVTEX receivers are fully automatic and receive broadcasts in coastal regions up to 300 nautical miles offshore;
b) Inmarsat-C terminals receive Enhanced Group Call (EGC) - SafetyNET broadcasts for areas outside NAVTEX coverage;
c) High Frequency Narrow-Band-Direct-Printing (HF NBDP) receivers may be used where service is available to promulgate MSI in areas outside Inmarsat coverage; and
d) VHF marine radio (Sea Area A1) as a medium for obtaining nav/met MSI.

4.2.1.4 GMDSS Sea Areas - International

Although ship-to-ship alerting is still an important function in GMDSS, the emphasis is on two way communications between ships and shore facilities. All GMDSS ships must be capable of communicating with the shore and transmitting a distress alert by two different means. The equipment carried by a GMDSS ship is therefore determined by its area of operation and the availability of shore-based communications services.

Table 4-7 - Four "Sea Areas" defined in the GMDSS

Area	Description
Sea Area A1	Within range of shore-based VHF/DSC coast station (40 nautical miles).
Sea Area A2	Within range of shore-based MF/DSC coast station (excluding sea areas A1) (150 nautical miles).
Sea Area A3	Sea Area 3 is that sea area of the world not being part of any sea area A1 or A2 within which the elevation angle of an Inmarsat satellite is 5 degrees or more.
Sea Area A4	The remaining areas outside sea areas A1, A2 and A3 (polar regions).

4.2.1.5 GMDSS Sea Areas - Canada

In Canada, as a result of consultations with the Canadian marine industry, it has been decided to implement sea areas A1 on the east and west coasts. Outside of Sea Area A1 will be a Sea Area A3 with a Sea Area A4 in the Arctic.

Consideration was given to the implementation of a Sea Area A2, but due to budgetary constraints and the marine industry's preference for sea areas A1 and A3, sea area A2 is not being planned at this time. Sea Area A1 for the Great Lakes and St. Lawrence River is also provided.

4.2.1.6 Communications between GMDSS Vessels and Non-GMDSS Vessels

Since February 1st, 1999, GMDSS larger ships have been maintaining an automated listening watch on VHF/DSC Ch70 and MF/DSC 2187.5 kHz. This at times creates the situation, where vessels fitted with traditional, non-GMDSS radio equipment, may have had difficulties alerting or contacting a GMDSS ship. The CCG is addressing this by monitoring both GMDSS and traditional distress frequencies. Furthermore, the CCG and Transport Canada encourage all vessels to fit VHF/DSC in the interest of increased safety.

4.2.1.7 Important Safety Notice concerning VHF/DSC

After having received a distress, urgency or safety broadcast announcement on VHF/DSC Ch70 the VHF/DSC equipment will automatically switch the DSC radio to VHF Ch16 for the subsequent voice announcements. Mariners who are required by the *VHF Practices and Procedures Regulations* to monitor a specific VTS sector frequency should return the radio to the appropriate working frequency after determining, on Ch16, the impact of the VHF/DSC alert broadcast announcement on their vessel's operations.

It has been determined that vessels maintaining a listening watch on a VTS sector frequency, per the requirements of the *VTS Zone Regulations* may, if navigating in congested waters, temporarily discontinue DSC watchkeeping on VHF/DSC Channel 70 until the required manoeuvre has been completed.

Vessels inadvertently or accidentally transmitting a distress/urgency/safety broadcast on VHF/DSC must cancel the distress/urgency/safety broadcast on VHF Ch16. Intentionally sending a false distress alert carries penalties under both the *Canada Shipping Act, 2001* and the *Radiocommunications Act*.

VHF/DSC equipment must be programmed with the correct Maritime Mobile Service Identity (MMSI) numbers (reference "Radio Station Licensing and MMSI numbers" in Section 4.3.12, also reference Section 1.4 for the MCTS Centres' MMSI numbers).

4.2.1.8 Canadian Coast Guard Marine Communications and Traffic Services Centres (MCTS)

To help ease the transition to GMDSS and bridge the communication gap between the two systems, Canadian Coast Guard MCTS Centres will continue to monitor the current distress and safety channels VHF Ch16 and MF 2182 kHz for the foreseeable future. Once Canada's sea areas have all been implemented, lower cost DSC equipment is available, and it is determined that these services are no longer required, these listening watches may be discontinued. This decision will be evaluated at that time.

The CCG national VHF-DSC (digital selective calling) network controlled by MCTS Centres can process VHF-DSC "Test Calls" from vessels provided that the marine radio meets the International Telecommunications Union (ITU) standard Recommendation M.493-14 (as amended) "Digital selective-calling system for use in the maritime mobile service".

The CCG VHF-DSC equipment is configured to automatically acknowledge VHF-DSC test calls within seconds of receipt provided that the MCTS Centre VHF-DSC equipment is not processing higher priority DSC calls.

To supplement the broadcasting of Maritime Safety Information (MSI) on NAVTEX, Inmarsat, SafetyNET and HF NBDP, MCTS Centres will continue MSI broadcasts using the existing VHF continuous marine broadcast system and MF radiotelephony broadcast at advertised times.

4.2.2 *Long-Range Identification and Tracking of Vessels Regulations (LRIT)*[4]

INTERPRETATION

Definitions

1. (1) The following definitions apply in these Regulations.

cargo vessel means a vessel that is not a passenger vessel and is of 300 tons gross tonnage or more. *(bâtiment de charge)*

international voyage means a voyage between a port in one country and a port in another country, but does not include a voyage solely on the Great Lakes, the St. Lawrence River and their connecting and tributary waters as far east as the lower exit of the St. Lambert Lock at Montréal. *(voyage international)*

LRIT equipment means information-transmitting equipment for the long-range identification and tracking of a vessel. *(équipement LRIT)*

LRIT information means the information referred to in section 5. (renseignements LRIT)

Minister means the Minister of Transport. *(ministre)*

passenger vessel means a vessel that carries more than 12 passengers. *(bâtiment à passagers)*

sea area A1, sea area A2, sea area A3 and sea area A4 have the meanings assigned by regulation 2.1 of Chapter IV of SOLAS. *(zone océanique A1, zone océanique A2, zone océanique A3 et zone océanique A4)*

SOLAS means the International Convention for the Safety of Life at Sea, 1974, and the Protocol of 1988 relating to the Convention, as amended from time to time. *(SOLAS)*

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[4] Reference: SOR/2010-227

When vessel is constructed

(2) For the purpose of these Regulations, a vessel is constructed on the earliest of

(a) the day on which its keel is laid;

(b) the day on which construction identifiable with a specific vessel begins; and

(c) the day on which assembly of the vessel reaches the lesser of 50 tons and 1% of the estimated mass of all structural material.

APPLICATION

Cargo vessels and passenger vessels

2. (1) These Regulations apply in respect of Canadian vessels everywhere if they

(a) are engaged on international voyages; and

(b) are cargo vessels or passenger vessels.

Exceptions

(2) These Regulations do not apply in respect of

(a) pleasure craft; or

(b) government vessels.

COMPLIANCE

Authorized representative

3. The authorized representative of a vessel shall ensure that the requirements of sections 4 to 10 are met.

LRIT EQUIPMENT

Vessels to be fitted

4. (1) Every vessel shall be fitted with LRIT equipment.

Exception — sea area A1

(2) Subsection (1) does not apply in respect of a vessel that operates exclusively in sea area A1 if it is fitted with an automatic identification system that meets the requirements of and is operated in accordance with section 65 of the *Navigation Safety Regulations*.

Exception — vessels constructed before December 31, 2008

(3) A vessel constructed before December 31, 2008 is not required to be fitted with LRIT equipment before

(a) if the vessel is certified under subsection 51(4) of the *Ship Station (Radio) Technical Regulations, 1999* for operation in sea area A1 and sea area A2 or in sea area A1, sea area A2 and sea area A3, the later of the day on which these Regulations come into force and the day on which its radio installation is first inspected after December 31, 2008; or

(b) if the vessel is certified under subsection 51(4) of the *Ship Station (Radio) Technical Regulations, 1999* for operation in sea area A1, sea area A2, sea area A3 and sea area A4,

(i) while the vessel is operating in sea area A1, sea area A2 or sea area A3, the later of the day on which these Regulations come into force and the day on which its radio installation is first inspected after December 31, 2008, or

(ii) while the vessel is not operating in sea area A1, sea area A2 or sea area A3, the later of the day on which these Regulations come into force and the day on which its radio installation is first inspected after July 1, 2009.

Interpretation

(4) For the purpose of subsection (3), inspection of a vessel's radio installation occurs when it is inspected as required by section 51 of the *Ship Station (Radio) Technical Regulations, 1999*.

Automatic transmission

5. The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall automatically transmit the following information:

(a) the vessel's identity;

(b) the vessel's position, particularly its latitude and longitude; and

(c) the date and time of the transmission.

Type approval or certification

6. (1) The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall be type-approved or certified by the Minister as meeting the performance standards and functional requirements set out in section 4 of the *Revised performance standards and functional requirements for the long-range identification and tracking of ships*, the annex to International Maritime Organization Resolution MSC.263(84), as amended from time to time.

Interpretation

(2) For the purpose of interpreting section 4 of the annex referred to in subsection (1),

(a) "should" shall be read to mean "shall"; and

(b) "Administration" shall be read to mean "Minister".

Switching off equipment

7. (1) The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall be capable of being switched off on board.

Master

(2) The vessel's master may switch off the LRIT equipment:

(a) when international agreements, rules or standards provide for the protection of navigational information; and

(b) in exceptional circumstances and for the shortest duration possible when the equipment's operation is considered by the vessel's master to compromise the safety or security of the vessel.

Informing authorities

(3) If the master switches off the LRIT equipment in the case provided for by paragraph (2) (b), the master shall

a) without undue delay inform a MCTS Centre of the Canadian Coast Guard and, if the vessel is in the waters of a contracting government, the relevant maritime authority of that government; and

b) make an entry, in the record of navigational activities and incidents maintained in accordance with section 85 of the *Navigation Safety Regulations*, setting out the reasons for the decision and indicating the period during which the equipment was switched off.

Reducing frequency of or temporarily stopping transmission

8. (1) The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall be capable of

(a) being configured to transmit the LRIT information at a reduced frequency of once every 24 hours; and

(b) temporarily stopping the transmission of LRIT information.

Master

(2) While a vessel is undergoing repairs, modifications or conversions in dry dock or in port or is laid up, the vessel's master may, on his or her own

initiative, and shall, if directed to do so by the Minister,

(a) reduce the frequency of the transmission of LRIT information to once every 24 hours; or

(b) temporarily stop the transmission of LRIT information.

Informing authorities

(3) If the master reduces the frequency of or temporarily stops the transmission of LRIT information under subsection (2), the master shall

(a) without undue delay inform a MCTS Centre of the Canadian Coast Guard and, if the vessel is in the waters of a contracting government, the relevant maritime authority of that government; and

(b) make an entry, in the record of navigational activities and incidents maintained in accordance with section 85 of the *Navigation Safety Regulations*, indicating the period during which the transmission of LRIT information was reduced in frequency or temporarily stopped, and whether or not the Minister directed the action.

Failure of system

9. If the Minister or the Canadian Coast Guard informs the master of a vessel that any part of the system used to receive LRIT information from the vessel or to disseminate the information has failed, the master shall make an entry, in the record of navigational activities and incidents maintained in accordance with section 85 of the *Navigation Safety Regulations*, setting out the date and time the master was informed.

Electromagnetic interference

10. LRIT equipment shall be installed so that electromagnetic interference does not affect the proper functioning of navigational equipment.

Issuance of proof of type approval or of certificate

11. (1) On application, the Minister shall issue a proof of type approval or a certificate for LRIT equipment if the Minister determines that the equipment meets the performance standards and functional requirements referred to in subsection 6(1).

Carry proof or certificate on board

(2) A vessel's master shall ensure that a proof of type approval or a certificate issued under subsection (1) for the LRIT equipment fitted on the vessel to meet the requirements of section 4 is

(a) in the case of a proof of type-approval, carried on board in the form of

(i) a label that is securely affixed to the equipment in a readily visible location, or

(ii) a document that is kept in a readily accessible location; and

(b) in the case of a certificate, carried on board in a readily accessible location.

COMING INTO FORCE

Registration date

12. These regulations come into force on the day on which they are registered.

4.2.3 *Emergency Position Indicating Radio Beacons (406 MHz)*

It is recommended that a float-free EPIRB be carried on board ships and pleasure crafts operating offshore. To be effective, 406 MHz EPIRBs must be registered with the Canadian Beacon Registry by telephone 1-800-406-7671; facsimile 1-877-406-3298;

or, on the Website at: www.cbr-rcb.ca. You may also reach the Canadian Beacon Registry by email at cbr@sarnet.dnd.ca.

Note: Inmarsat discontinued their monitoring service of Inmarsat "E" EPIRB distress alerts as of December 1, 2006.

Mariners should check with Inmarsat for exchange of any currently held Inmarsat "E" EPIRBs. Further, mariners should only purchase and fit COSPAS-SARSAT 406 MHz EPIRBs.

a) Float-free EPIRBs should not be fitted under ledges or structures that would impede their ability to float free. Do not install the EPIRB with lanyard attached to the superstructure of your vessel.
b) Both manually activated EPIRBs and float-free EPIRBs should be readily accessible so that in the event of an emergency, it is available for immediate use.
c) EPIRBs should be tested using the "TEST" button, by the operator every 6 months. This test should be recorded in the radio log.
d) EPIRB battery packs and hydrostatic release units should be replaced per the manufacturer's recommendations.

A list of 406 MHz EPIRBs approved for use in Canada is available on the Website at: http://www.tc.gc.ca/eng/marinesafety/oep-navigation-safety-apci-2298.htm.

4.2.4 *Ship Station (Radio) Regulations, 1999*

▨ Ships ≥20m and certified to carry >12 passengers, or ships ≥300gt
☐ All other ships

1) Requirements for Safety Convention ships are not shown as they must comply with the Safety Convention.
2) Requirements for ships on inland voyages and minor waters voyages are not shown since there are no new requirements.
3) Regulations do not apply to a pleasure yacht not carrying a master or crew for hire, or a tow-boat in a booming ground.

Table 4-8 - Sea Area A1 or VHF

Equipment	**Sea Area A1 or VHF**
VHF Radio with DSC (SSRR)	Yes -unless ship operates within a VTS Zone, then will have until January 31, 2003, or until the sea area A1 is completed, whichever is latest.
	Yes - by February 1, 2003, or after sea area A1 completed, whichever is latest • ships ≥8m in length and of closed construction, • ships carrying >6 passengers, and • tow boats -exempted are ships on a home-trade voyage, class IV in a VTS Zone -current VHF radiotelephone provisions remain in effect until then
Inmarsat Ship Earth Station with EGC, and MF Radio with DSC, or MF/HF Radio with DSC and NBDP (SSRR)	No
	No
NAVTEX Receiver (no change to current requirement – SSRR)	No
	No
EPIRB (float-free) (SSRR)	Yes
	Yes • if ≥20 m (and beyond home trade IV voyage) • if tug >5gt and <20 m if voyage >50 miles long and >2 miles from shore • if ≥ 15gt and go beyond home-trade III voyage limits i.e., 20 miles from shore by April 1, 2001 • if ≥ 8m and go beyond home-trade III voyage limits on April 1, 2002 (Note: EPIRB does not have to be float-free if less than 15gt) -exempted are ships on home-trade voyages, class IV or minor waters voyages.

Equipment	**Sea Area A1 or VHF**
Radar Transponder(s) (SARTs) (SSRR, Life Saving Equipment Regulations, Large Fishing Vessel Inspection Regulations, and Small Fishing Vessel Inspection Regulations)	No
	Yes 1 if 20m in length or over on > HTII voyages; but, can continue to carry 2 Class II EPIRBs instead until one of the batteries expire.
Survival Craft VHF Portable Radio (Life Saving Equipment Regulations, Large Fishing Vessel Inspection Regulations)	Yes 3 are required, unless ship is certified to carry ≤12 passengers and is <500gt, then carry 2 (new requirement for ships on home-trade voyages, class III).
	No
Reserve Source of Energy	Yes
	Yes if ship is ≥20m, is carrying more than 6 passengers, or is a tow-boat.

Table 4-9 - Sea Area A3

Equipment	**Sea Area A3**
VHF Radio with DSC (SSRR)	Yes -unless ship operates within a VTS Zone, then will have until January 31, 2003, or until the sea area A1 is completed, whichever is latest.
	Yes - by February 1, 2003, or after sea area A1 completed, whichever is latest • ships ≥8m in length and of closed construction, • ships carrying >6 passengers, and • tow boats -exempted are ships on a home-trade voyage, class IV in a VTS Zone -current VHF radiotelephone provisions remain in effect until then
Inmarsat Ship Earth Station with EGC, and MF Radio with DSC, or MF/HF Radio with DSC and NBDP (SSRR)	Yes (EGC required only if outside NAVTEX range)
	No
NAVTEX Receiver (no change to current requirement – SSRR)	Yes
	Yes • if ≥ 150gt tow boat • if ≥ 300gt cargo ship • if ≥24m fishing, or • if passenger ship

Equipment	**Sea Area A3**
EPIRB (float-free) (SSRR)	Yes
	Yes • if ≥20 m (and beyond home trade IV voyage) • if tug >5gt and <20 m if voyage >50 miles long and >2 miles from shore • if ≥ 15gt and go beyond home-trade III voyage limits i.e., 20 miles from shore by April 1, 2001 • if ≥ 8m and go beyond home-trade III voyage limits on April 1, 2002 (Note: EPIRB does not have to be float-free if less than 15gt) -exempted are ships on home-trade voyages, class IV or minor waters voyages.
Radar Transponder(s) (SARTs) (SSRR, Life Saving Equipment Regulations, Large Fishing Vessel Inspection Regulations, and Small Fishing Vessel Inspection Regulations)	Yes 2 are required, unless ship is certified to carry ≤ 12 passengers and is <500gt, then carry 1.
	Yes 1 if 20m in length or over on > HTII voyages; but, can continue to carry 2 Class II EPIRBs instead until one of the batteries expire.
Survival Craft VHF Portable Radio (Life Saving Equipment Regulations, Large Fishing Vessel Inspection Regulations)	Yes 3 are required, unless ship is certified to carry ≤12 passengers and is <500gt, then carry 2 (new requirement for ships on home-trade voyages, class III).
	Yes 3 are required if ship is certified to carry >12 passengers and is >5gt.
Reserve Source of Energy	Yes
	Yes if ship is ≥20m, is carrying more than 6 passengers, or is a tow-boat.

Table 4-10 - Sea Area A4

Equipment	**Sea Area A4**
VHF Radio with DSC (SSRR)	Yes -unless ship operates within a VTS Zone, then will have until January 31, 2003, or until the sea area A1 is completed, whichever is latest.
	Yes - by February 1, 2003, or after sea area A1 completed, whichever is latest • ships ≥8m in length and of closed construction, • ships carrying >6 passengers, and • tow boats -exempted are ships on a home-trade voyage, class IV in a VTS Zone -current VHF radiotelephone provisions remain in effect until then

Equipment	**Sea Area A4**
Inmarsat Ship Earth Station with EGC, and MF Radio with DSC, or MF/HF Radio with DSC and NBDP (SSRR)	Yes MF/HF option only
	No
NAVTEX Receiver (no change to current requirement – SSRR)	No
	No
EPIRB (float-free) (SSRR)	Yes
	Yes • if ≥20 m (and beyond home trade IV voyage) • if tug >5gt and <20 m if voyage >50 miles long and >2 miles from shore • if ≥ 15gt and go beyond home-trade III voyage limits i.e., 20 miles from shore by April 1, 2001 • if ≥ 8m and go beyond home-trade III voyage limits on April 1, 2002 (Note: EPIRB does not have to be float-free if less than 15gt) -exempted are ships on home-trade voyages, class IV or minor waters voyages.
Radar Transponder(s) (SARTs) (SSRR, Life Saving Equipment Regulations, Large Fishing Vessel Inspection Regulations, and Small Fishing Vessel Inspection Regulations)	Yes 2 are required, unless ship is certified to carry ≤ 12 passengers and is <500gt, then carry 1.
	Yes 1 if 20m in length or over on > HTII voyages; but, can continue to carry 2 Class II EPIRBs instead until one of the batteries expire.
Survival Craft VHF Portable Radio (Life Saving Equipment Regulations, Large Fishing Vessel Inspection Regulations)	Yes 3 are required, unless ship is certified to carry ≤12 passengers and is <500gt, then carry 2 (new requirement for ships on home-trade voyages, class III).
	Yes 3 are required if ship is certified to carry >12 passengers and is >5gt.
Reserve Source of Energy	Yes
	Yes if ship is ≥20m, is carrying more than 6 passengers, or is a tow-boat.

DSC: digital selective calling
EGC: enhanced group calling
NBDP: narrow band direct printing

Additional requirements: emergency procedures card, operating and routine maintenance manuals, consumable spare parts, radio publications, time piece, weather facsimile (Arctic), spare antennas (some ships ≥20m).

4.2.5 *Guidance for Masters in Distress Situations and Alerting of SAR Authorities*

In 1992, the International Maritime Organization (IMO) prepared a flow chart providing GMDSS operating guidance for masters of ships in distress situations (COM/Circ.108). It was recommended that this chart be displayed on the ship's bridge.

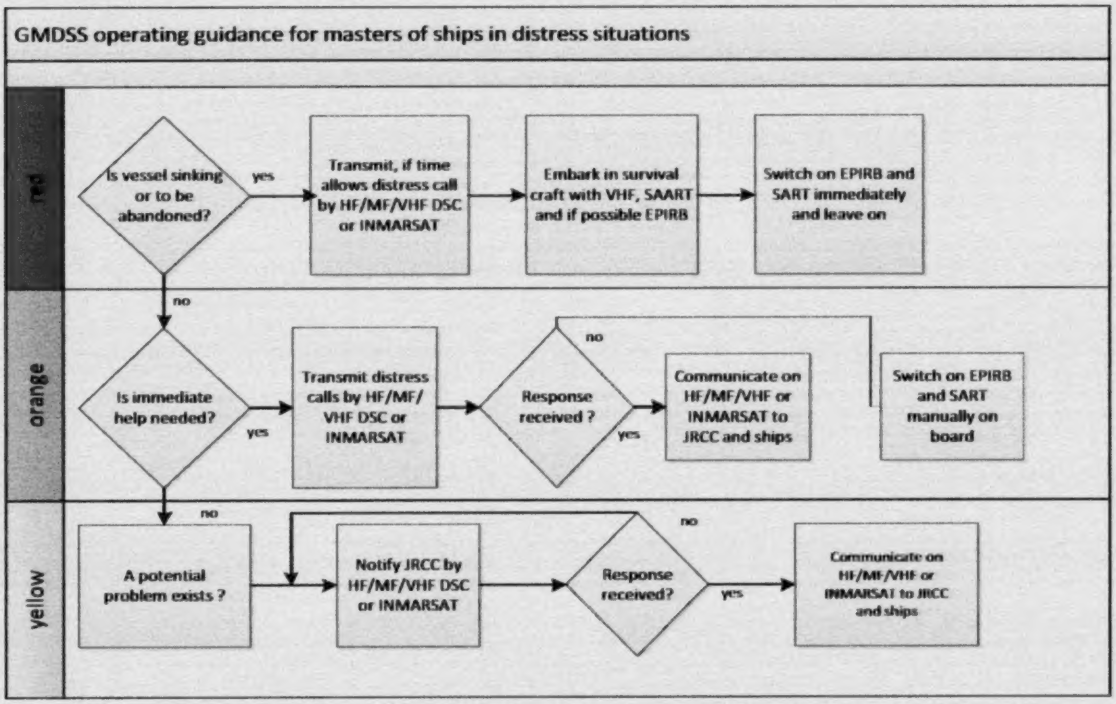
Later, another circular (MSC/Circ.892) was prepared to strongly emphasize the importance for ships to alert SAR authorities at the earliest possible moment in any situation that may involve a danger to life or that has the potential of developing into such a situation.

The following is for the mariner's information and guidance:

a) GMDSS Operating Guidance for Masters of Ships in Distress Situations and;

b) Alerting the Search and Rescue Authorities

Figure 4-1 - GMDSS Operating Guidance for Masters of Ships in Distress Situations


GMDSS operating guidance for masters of ships in distress situations
red
Is vessel sinking or to be abandoned?
yes
Transmit, if time allows distress call by HF/MF/VHF DSC or INMARSAT
Embark in survival craft with VHF, SAART and if possible EPIRB
Switch on EPIRB and SART immediately and leave on
no
orange
Is immediate help needed?
yes
Transmit distress calls by HF/MF/ VHF DSC or INMARSAT
Response received ?
no
yes
Communicate on HF/MF/VHF or INMARSAT to JRCC and ships
Switch on EPIRB and SART manually on board
no
yellow
A potential problem exists ?
Notify JRCC by HF/MF/VHF DSC or INMARSAT
Response received?
no
yes
Communicate on HF/MF/VHF or INMARSAT to JRCC and ships

1. EPIRB should float-free and activate automatically if it cannot be taken into survival craft.
2. Where necessary, ships should use any appropriate means to alert other ships.
3. Nothing above is intended to preclude the use of any and all available means of distress alerting.

Radio distress communications

VHF	Digital Selective Calling (DSC) Channel 70	Radiotelephone Channel 16	Radiotelex
MF	2187.5 kHz	2182 kHz	2174.5 kHz
HF4	4207.5 kHz	4125 kHz	4177.5 kHz
HF6	6312 kHz	6215 kHz	6268 kHz
HF8	8414.5 kHz	8291 kHz	8376.5 kHz
HF12	12577 kHz	12290 kHz	12520 kHz
HF16	16804.5 kHz	16420 kHz	16695 kHz

4.2.5.1 Alerting the Search and Rescue Authorities (MSC/Circ.892)

1) The need for the earliest possible alerting of the search and rescue (SAR) co-ordination authority to maritime emergencies cannot be over-emphasized

2) It is essential to enable shore-based facilities to respond without delay to any situation which constitutes, or has the potential to constitute, a danger to life. Time lost in the initial stages of an incident may be crucial to its eventual outcome. It cannot be regained.

3) Factors to be considered include position (in relation to hazards and to shore-based or other SAR units); time of day; weather conditions (actual and forecast); the number of persons at risk or potentially at risk; specific assistance required, etc.

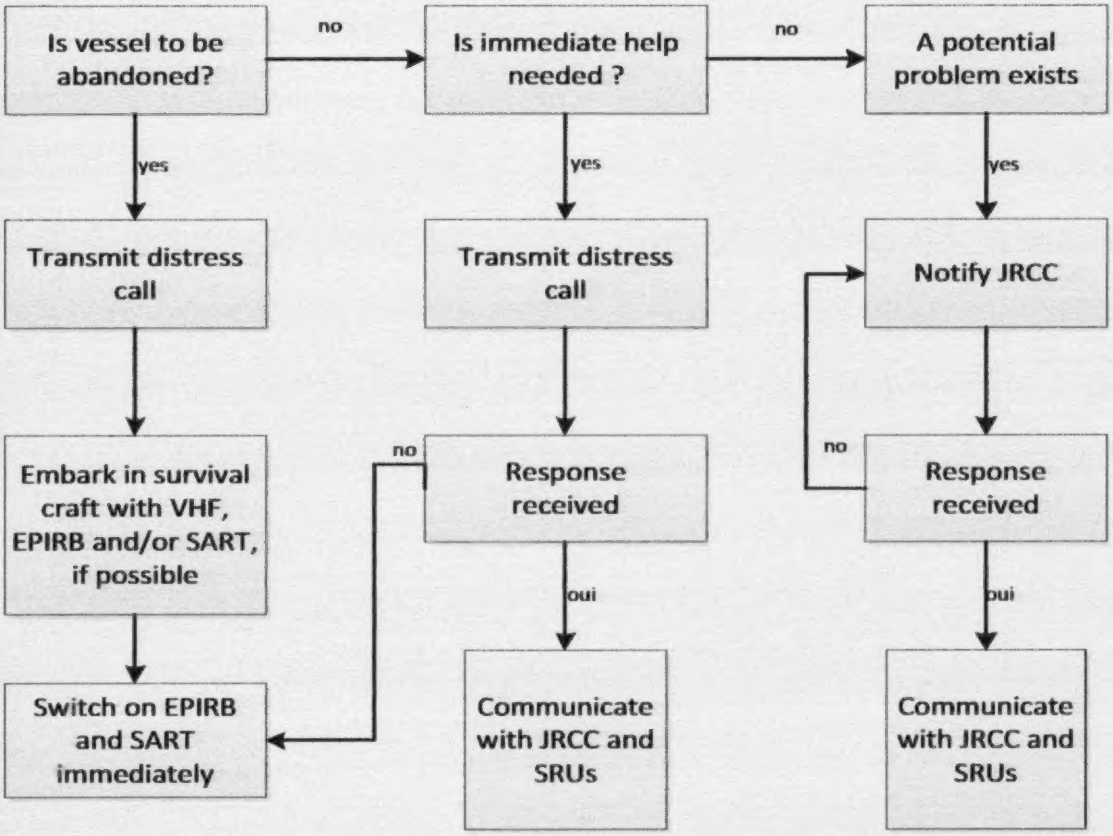
4) It is always best to consider the 'worst case scenario' and to alert the SAR organization accordingly. Depending on the circumstances, the co-ordinating authority may choose to alert or despatch SAR facilities as a precautionary measure and/or to reduce transit times. If assistance is not subsequently required, any such positive response can be easily curtailed. But time lost through delays in notification can never be regained.

5) It is therefore essential that the SAR co-ordinating authority be informed immediately of:
   i. all maritime SAR incidents;
   ii. any situation which may develop into a SAR incident; and
   iii. any incident which may involve or lead to danger to life, the environment or to property which may require action from the SAR services and/or other authorities.

Operating guidance for masters of ships in distress or urgency situations [to be considered in conjunction with IMO publication 969 - GMDSS Operating Guidance for Masters of Ships in Distress Situations (COM/Circ.108 of 23 January 1992)]

6) The following diagram shows standard procedures for distress/urgency message routing. It is for guidance only, and does not preclude the use of any and all available means of distress alerting.

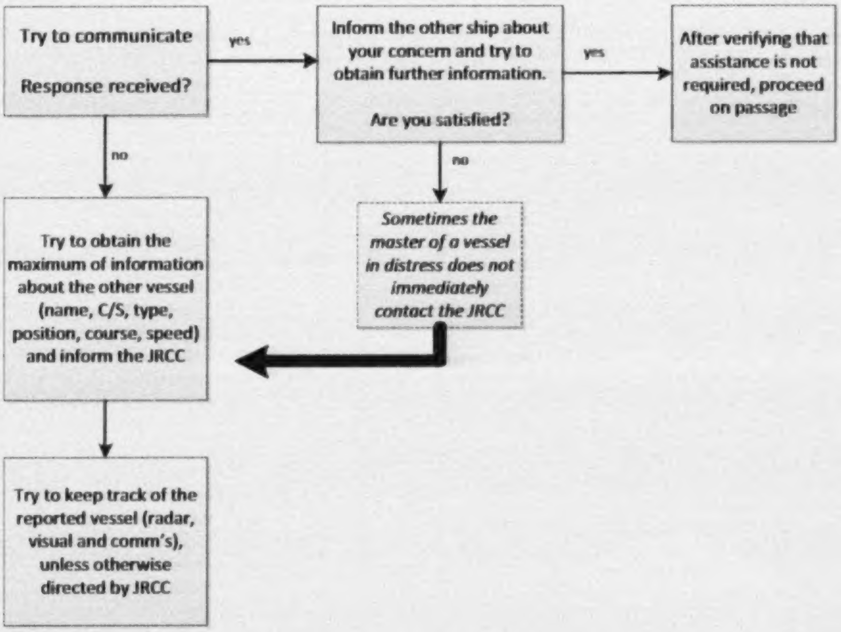
Figure 4-2 - Operating Guidance for Masters of Ships in Distress or Urgency Situations


Is vessel to be abandoned?
no
Is immediate help needed ?
no
A potential problem exists
yes
yes
yes
Transmit distress call
Transmit distress call
Notify JRCC
Embark in survival craft with VHF, EPIRB and/or SART, if possible
no
Response received
no
Response received
oui
oui
Switch on EPIRB and SART immediately
Communicate with JRCC and SRUs
Communicate with JRCC and SRUs

Operation guidance for masters of ships observing another vessel apparently in danger

7) The following diagram shows suggested procedures for reporting concerns about the safety of another vessel (fire, smoke, adrift, navigating towards a danger, etc.).

Figure 4-3 - Operation Guidance for Masters of Ships Observing Another Vessel Apparently in Danger


Try to communicate
Response received?
yes
Inform the other ship about your concern and try to obtain further information.
Are you satisfied?
yes
After verifying that assistance is not required, proceed on passage
no
no
Try to obtain the maximum of information about the other vessel (name, C/S, type, position, course, speed) and inform the JRCC
Sometimes the master of a vessel in distress does not immediately contact the JRCC
Try to keep track of the reported vessel (radar, visual and comm's), unless otherwise directed by JRCC

Note: For local JRCC contact information, refer to section *Search and Rescue in Canadian Areas of Responsibility* *(Part 4 of this publication)*

4.2.5.2 False Distress Alerts and Distress Relay Alerts

The GMDSS has been in force for ships on international voyages since February 1, 1999, following its seven-year phase-in. During this time, considerable experience was gained internationally in the operation of the GMDSS. While the GMDSS has proven its overall effectiveness, the high number of accidental distress alert activations and the inappropriate and unintended Digital Selective Calling (DSC) distress relay alerts have detracted from the efficiency of the system. Excessive false alerts and distress relay alerts can create an unnecessary burden and workload for SAR services. They may also cause confusion and undermine mariner's confidence in the GMDSS. They could potentially have a serious impact on real distress situations.

With the aim of minimizing the number of false alerts and distress alert relays, the following information is provided:

1) "Instructions for Mariners and Others on How to Cancel a False Alert" (appendix to IMO Resolution A.814(19) entitled Guidelines for the Avoidance of False Distress Alerts).
2) "Procedure for Responding to DSC Distress Alerts by Ships" (COMSAR/Cir.25).

4.2.5.3 Instructions for Mariners and Others[5] on How to Cancel a False Distress Alert[6]

[Appendix to IMO Resolution A.814 (19)]

DSC

1 VHF

1. switch off transmitter immediately[7];
2. switch equipment on and set to Channel 16; and
3. make broadcast to "All Stations" giving the ship's name, call sign and MMSI number, and cancel the false distress alert.

Example

All Stations, All Stations, All Stations
This is NAME, CALL SIGN
MMSI NUMBER, POSITION

Cancel my distress alert of
DATE, TIME, UTC
= Master NAME, CALL SIGN,
MMSI NUMBER, DATE, TIME UTC

2 MF

1. switch off equipment immediately[8];
2. switch equipment on and tune for radiotelephony transmission on 2182 kHz; and
3. make broadcast to "All Stations" giving the ship's name, call sign and MMSI number, and cancel the false distress alert.

Example

All Stations, All Stations, All Stations
This is NAME, CALL SIGN
MMSI NUMBER, POSITION.

Cancel my distress alert of
DATE, TIME, UTC,
= Master NAME, CALL SIGN,
MMSI NUMBER DATE, TIME UTC.

3 HF

As for MF, but the alert must be cancelled on all the frequency bands on which it was transmitted. Hence, in stage 2.2 the transmitter should be tuned consecutively to the radiotelephony distress frequencies in the 4, 6, 8, 12 and 16 MHz bands, as necessary.

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[5] Appropriate signals should precede these messages in accordance with the *ITU Radio Regulations* Chapter N1X.
[6] Appendix to IMO Resolution A.814 (19)
[7] This applies when the false alert is detected during transmission.
[8] This applies when the false alert is detected during transmission.

4 Inmarsat-C

Notify the appropriate JRCC to cancel the alert by sending a distress priority message via the same CES through which the false distress alert was sent.

NAME, CALL SIGN, IDENTITY NUMBER,
POSITION
Cancel my Inmarsat-C distress
alert of DATE, TIME UTC
= Master +

5 EPIRBs

If for any reason an EPIRB is activated accidentally, the ship should contact the nearest coast station or an appropriate coast earth station or JRCC and cancel the distress alert.

6 General

6.1 Notwithstanding the above, ships may use any means available to them to inform the appropriate authorities that a false distress alert has been transmitted and should be cancelled.

6.2 No action will normally be taken against any ship or mariner for reporting and cancelling a false distress alert. However, in view of the serious consequences of false alerts, and the strict ban on their transmission, Governments may prosecute in cases of repeated violations.

4.2.6 *Procedure for Responding to DSC Distress Alerts by Ships*[9]

(COMSAR/Circ.25)

1. Introduction

The Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) decided that Digital Selective Calling (DSC) relays of distress alerts on all shipborne DSC equipment should be reduced and prepared a procedure for responding to VHF/MF and HF distress alerts, given in flow diagrams 1 and 2 which follow, recommending that it be displayed on the ship's bridge as A4 size posters. It also prepared the following guidance.

2. Distress relays

2.1 Radio personnel serving on ships should be made aware of the consequences of transmitting a distress relay call and of routing a DSC distress relay alert to other than coast stations (CS).

2.2 The number of unintended activations of DSC distress alerts and DSC distress relay alerts creates extra work load and confusion to (M) JRCCs and also causing delay in the response-time. The original distress alert from a ship in distress should not be disrupted by other ships, by transmitting a DSC distress relay alert.

2.3 Recommendation ITU-R M.541-8 on Operational procedures for the use of DSC equipment in the Maritime Mobile Service identifies only two situations in which a ship would transmit a distress relay call (distress relay alert):

i. on receiving a distress alert on a HF channel, which is not acknowledged by a coast station within 5 minutes. The distress relay call should be addressed to the appropriate coast station (Annex 1, paragraph 3.4.2 and Annex 3, paragraph 6.1.4); and

ii. on knowing that another ship in distress is not itself able to transmit the distress alert and the Master of the ship considers that further help is necessary. The distress relay call should be addressed to "all ships" or to the appropriate coast station (Annex 3, paragraph 1.4).

2.4 In no case is a ship permitted to transmit a DSC distress relay call on receipt of a DSC distress alert on either VHF or MF channels.

2.5 Distress relay calls on HF channels should be initiated manually.

2.6 Compliance with operational and technical provisions above would prevent transmissions of inappropriate distress relay calls.

3. All coast stations call

3.1 Recommendation ITU-R M.493-9 on DSC systems for use in the Maritime Mobile Service provides for "group calls" an address consisting of the characters corresponding to the station's Maritime Mobile Service identity (MMSI) and a number of administrations have already assigned a "group call" MMSI to their coast stations in addition to the coast station's individual MMSI.

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[9] COMSAR/Circ.25

3.2 By multilateral agreements, a "group call" MMSI could be assigned to all coast stations of a specific region, e.g., an JRCC area and could comply with IMO's requirement without need of introducing further modifications to GMDSS equipment.

3.3 An alternative method to implement an "all coast stations" call without the need to modify Recommendation ITU-R M.493-9 could be to define one MMSI world-wide as an address for all coast stations, in accordance with Nos. S19.100 to S19.126 of the *ITU Radio Regulations*. However, this solution would also require a modification of the setup at each coast station participating in the GMDSS.

4. Authorization

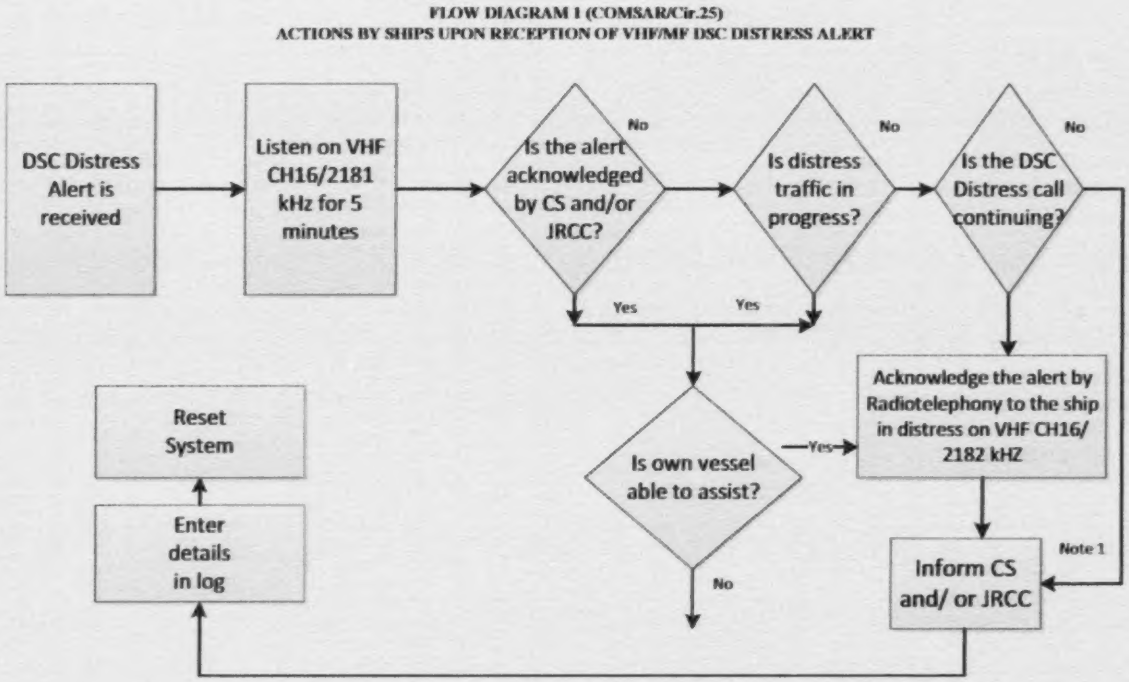
It should be noted that on ships, distress alerts, distress acknowledgements and distress relay calls can only be transmitted with permission of the Master of the ship.

5. Flow diagrams

5.1 The simplified flow diagrams 1 and 2 describe actions to be taken aboard ships upon receipt of distress alerts from other ships. Administrations should give wide distribution of these flow diagrams to ships and training institutions.

5.2 Member Governments are invited to bring the above guidance and the attached flow diagrams to the attention of their shipowners, seafarers, coast stations, JRCCs and all others concerned.

Figure 4-4 - Flow Diagram 1 (COMSAR/Cir.25)


FLOW DIAGRAM 1 (COMSAR/Cir.25)
ACTIONS BY SHIPS UPON RECEPTION OF VHF/MF DSC DISTRESS ALERT
DSC Distress Alert is received
Listen on VHF CH16/2181 kHz for 5 minutes
Is the alert acknowledged by CS and/or JRCC?
No
Yes
Is distress traffic in progress?
No
Yes
Is the DSC Distress call continuing?
No
Is own vessel able to assist?
Yes
No
Acknowledge the alert by Radiotelephony to the ship in distress on VHF CH16/ 2182 kHZ
Inform CS and/ or JRCC
Note 1
Reset System
Enter details in log

CS = Coast Station
JRCC = Joint Rescue Co-ordination Center

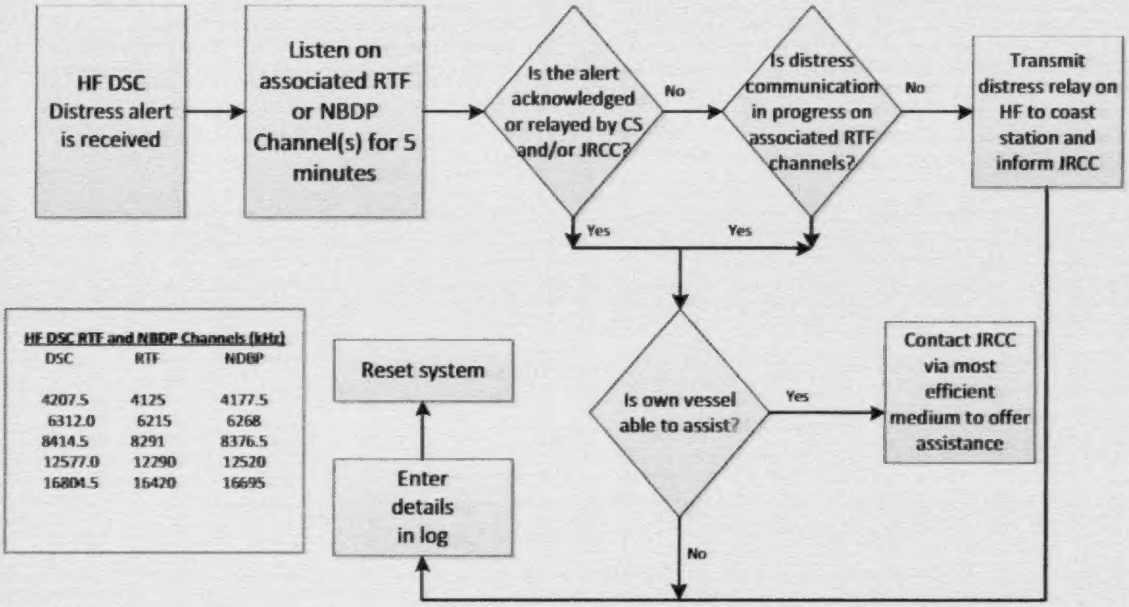
Remarks:

Note 1: Appropriate or relevant JRCC and/or Coast Station shall be informed accordingly. If further DSC alerts are received from the same source and the ship in distress is behond doubt in the vicinity, a DSC acknowledgement may, after consultation with a JRCC or Coast Station, be sent to terminate the call.

Note 2: In no case is a ship permitted to transmit a DSC distress relay call on receipt of a DSC distress alert on either VHF channel 70 or MF Channel 2187.5 kHz.

Figure 4-5 - Flow Diagram 2 (COMSAR/Cir.25)

FLOW DIAGRAM 2 (COMSAR/Cir.25)
ACTIONS BY SHIPS UPON RECEPTION OF HF-DSC DISTRESS ALERT


HF DSC Distress alert is received
Listen on associated RTF or NBDP Channel(s) for 5 minutes
Is the alert acknowledged or relayed by CS and/or JRCC?
No
Is distress communication in progress on associated RTF channels?
No
Transmit distress relay on HF to coast station and inform JRCC
Yes
Yes
Reset system
Is own vessel able to assist?
Yes
Contact JRCC via most efficient medium to offer assistance
Enter details in log
No

HF DSC RTF and NBDP Channels (kHz)

DSC	RTF	NDBP
4207.5	4125	4177.5
6312.0	6215	6268
8414.5	8291	8376.5
12577.0	12290	12520
16804.5	16420	16695

CS = Coast Station
JRCC = Joint Rescue Coordination Centre

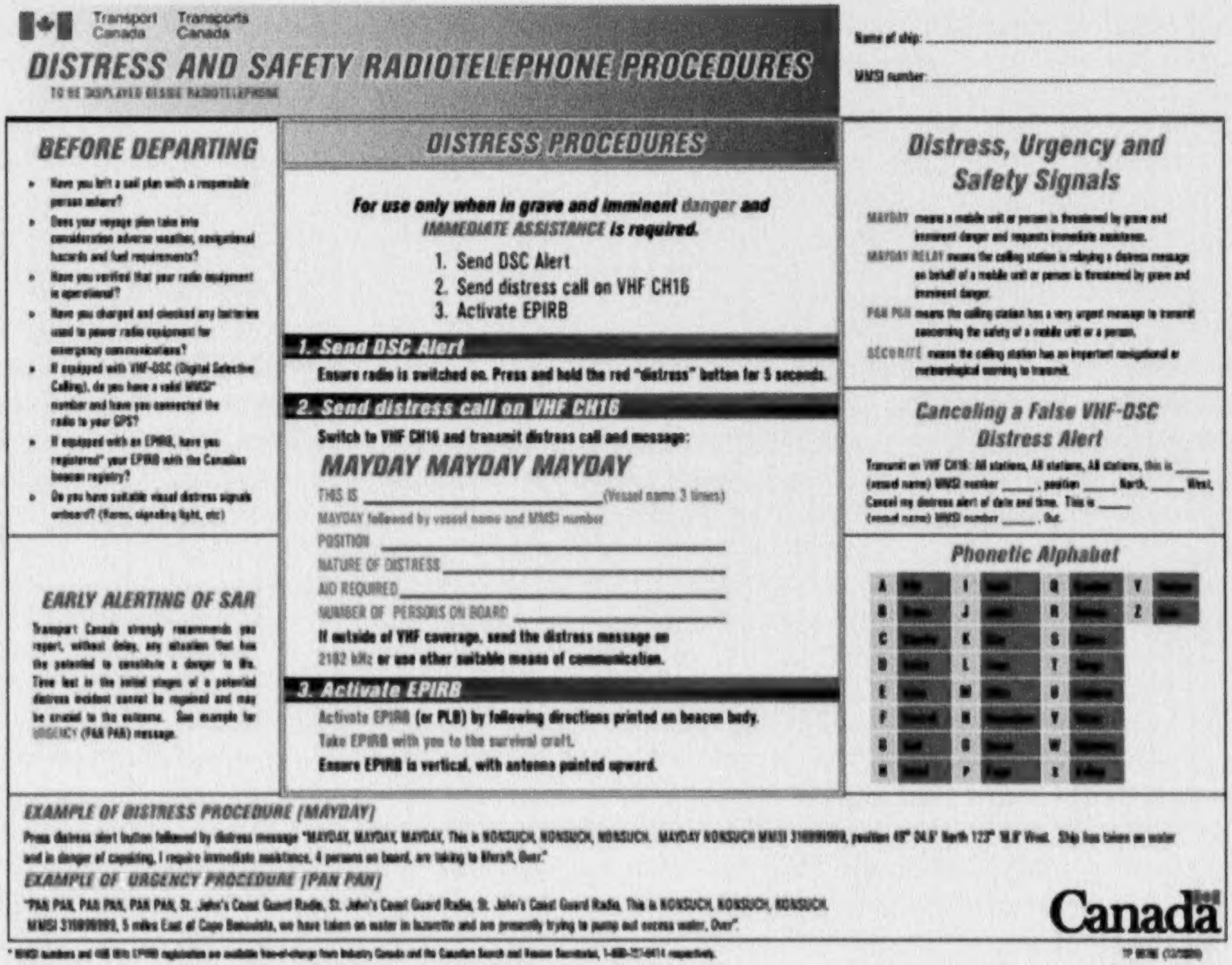
Remarks:

Note 1: If it is clear the ship or persons in distress are not in the vinicity and/or other crafts are better placed to assist, superfluous communications which could interfere with search and rescue activities are to be avoided. Details should be recorded in the appropriate logbook.

Note 2: The ship should establish communications with the station controlling the distress as directed and render such assistance as required and appropriate.

Note 3: Distress relay calls should be initiated manually.

Figure 4-6 - Distress and Safety Radiotelephone Procedures



Transport Canada Transports Canada

DISTRESS AND SAFETY RADIOTELEPHONE PROCEDURES

TO BE DISPLAYED BESIDE RADIOTELEPHONE

Name of ship: ______

MMSI number: ______

BEFORE DEPARTING

- Have you left a sail plan with a responsible person ashore?
- Does your voyage plan take into consideration adverse weather, navigational hazards and fuel requirements?
- Have you verified that your radio equipment is operational?
- Have you charged and checked any batteries used to power radio equipment for emergency communications?
- If equipped with VHF-DSC (Digital Selective Calling), do you have a valid MMSI* number and have you connected the radio to your GPS?
- If equipped with an EPIRB, have you registered* your EPIRB with the Canadian beacon registry?
- Do you have suitable visual distress signals onboard? (flares, signaling light, etc)

EARLY ALERTING OF SAR

Transport Canada strongly recommends you report, without delay, any situation that has the potential to constitute a danger to life. Time lost in the initial stages of a potential distress incident cannot be regained and may be crucial to the outcome. See example for URGENCY (PAN PAN) message.

DISTRESS PROCEDURES

For use only when in grave and imminent danger and IMMEDIATE ASSISTANCE is required.

1. Send DSC Alert
2. Send distress call on VHF CH16
3. Activate EPIRB

1. Send DSC Alert

Ensure radio is switched on. Press and hold the red "distress" button for 5 seconds.

2. Send distress call on VHF CH16

Switch to VHF CH16 and transmit distress call and message:

MAYDAY MAYDAY MAYDAY

THIS IS ______ (Vessel name 3 times)

MAYDAY followed by vessel name and MMSI number

POSITION ______

NATURE OF DISTRESS ______

AID REQUIRED ______

NUMBER OF PERSONS ON BOARD ______

If outside of VHF coverage, send the distress message on 2182 kHz or use other suitable means of communication.

3. Activate EPIRB

Activate EPIRB (or PLB) by following directions printed on beacon body.

Take EPIRB with you to the survival craft.

Ensure EPIRB is vertical, with antenna pointed upward.

Distress, Urgency and Safety Signals

MAYDAY means a mobile unit or person is threatened by grave and imminent danger and requests immediate assistance.

MAYDAY RELAY means the calling station is relaying a distress message on behalf of a mobile unit or person is threatened by grave and imminent danger.

PAN PAN means the calling station has a very urgent message to transmit concerning the safety of a mobile unit or a person.

SÉCURITÉ means the calling station has an important navigational or meteorological warning to transmit.

Canceling a False VHF-DSC Distress Alert

Transmit on VHF CH16: All stations, All stations, All stations, this is ______ (vessel name) MMSI number ______, position ______ North, ______ West, Cancel my distress alert of date and time. This is ______ (vessel name) MMSI number ______, Out.

Phonetic Alphabet

A	[illegible]	I	[illegible]	Q	[illegible]	Y	[illegible]
B	[illegible]	J	[illegible]	R	[illegible]	Z	[illegible]
C	[illegible]	K	[illegible]	S	[illegible]		
D	[illegible]	L	[illegible]	T	[illegible]		
E	[illegible]	M	[illegible]	U	[illegible]		
F	[illegible]	N	[illegible]	V	[illegible]		
G	[illegible]	O	[illegible]	W	[illegible]		
H	[illegible]	P	[illegible]	X	[illegible]		

EXAMPLE OF DISTRESS PROCEDURE (MAYDAY)

Press distress alert button followed by distress message "MAYDAY, MAYDAY, MAYDAY, This is NONSUCH, NONSUCH, NONSUCH. MAYDAY NONSUCH MMSI 316999999, position 49° 24.6' North 123° 18.8' West. Ship has taken on water and in danger of capsizing, I require immediate assistance, 4 persons on board, are taking to liferaft, Over."

EXAMPLE OF URGENCY PROCEDURE (PAN PAN)

"PAN PAN, PAN PAN, PAN PAN, St. John's Coast Guard Radio, St. John's Coast Guard Radio, St. John's Coast Guard Radio, This is NONSUCH, NONSUCH, NONSUCH. MMSI 316999999, 5 miles East of Cape Bonavista, we have taken on water in lazarette and are presently trying to pump out excess water, Over".

Canada

* MMSI numbers and 406 MHz EPIRB registration are available free-of-charge from Industry Canada and the Canadian Search and Rescue Secretariat, 1-800-727-9414 respectively.

TP [illegible]

4.2.7 *AMVER - Automated Mutual-Assistance Vessel Rescue System*

Note: A 96-hour pre-arrival report to U.S. ports is required under 33 CFR 160.

The Amver System, operated by the United States Coast Guard, is a maritime mutual assistance program that provides important aid to the development and co-ordination of search and rescue (SAR) efforts in the oceans of the world. Merchant vessels of all nations making offshore passages of more than 24 hours are encouraged to send sail plans and periodic position reports to the Amver Centre in Martinsburg, WV. There is no charge for these radio messages when they are sent through MCTS Centres. Information from these messages is entered into a computer that generates and maintains dead reckoning positions for participating vessels throughout their voyages. The predicted locations and SAR characteristics of all vessels known to be within a given area are furnished upon request to recognized SAR agencies of any nation for use during an emergency. Predicted vessels' locations are disclosed only for reasons related to maritime safety.

Amver is a free and voluntary program. An Amver participant is under no greater obligation to render assistance during an emergency than a vessel that is not participating. Benefits to shipping include:

a) improved likelihood of rapid aid in emergencies;
b) reduced number of calls for assistance to vessels not favourably located; and
c) reduced time lost for vessels responding to calls for assistance. An Amver participant is under no greater obligation to render assistance during an emergency than a vessel that is not participating.

Details of Amver System operations may be obtained from Amver Maritime Relations Office, U.S. Coast Guard, Battery Park Building, 1 South Street, New York, NY 10004-1499 (Telephone: 212-668-7764, Fax 212-668-7684). Amver instructions are also available at Coast Guard Captain of the Port and Marine Safety Offices in major United States coastal ports. The instructions are published in the following languages: Chinese, Danish, Dutch, English, French, German, Greek, Italian, Japanese, Norwegian, Polish, Portuguese, Spanish, and Swedish. Requests for instructions should state the language desired if other than English. Amver Website: http://www.amver.com

Ship Station (Radio) Technical Regulations, 1999 now specify compulsory participation in Amver for certain ships when departing on an offshore voyage of more than 24 hours duration.

The provisions apply to all Canadian ships and to all non-Canadian ships engaged in the coasting trade of Canada. Of this group, the following are exempted:

a) fishing vessels engaged in fishing;
b) ships operated by the Canadian government on law enforcement duties;
c) vessels whose voyages will be within the waters of an Arctic Shipping Safety Control Zone, Hudson Bay, James Bay or Ungava Bay; and
d) vessels in other waters provided their voyages are within VHF or MF coverage areas.

It should be noted that the above exemptions do not amount to a prohibition; and that all other ships proceeding on an offshore voyage of more than 24 hours duration are encouraged to participate in Amver.

4.2.7.1 To Participate

Any merchant vessel of one thousand gross tons or more on a voyage of greater than twenty-four hours to anywhere on the globe is to be part of the Amver system. International participation is voluntary regardless of vessel's or company's flag, country of origin, or destination.

4.2.7.2 The Information Reported

Information voluntarily provided by vessels to Amver is kept strictly confidential and is protected by the Coast Guard (USA). It will be released only for safety purposes.

4.2.7.3 What and When You Report

a) Sail plan message should be sent on or before departure.
b) Position Reports should be sent within twenty-four hours of departure and subsequently no less frequently than every forty-eight hours until arrival.
c) Arrival Reports should be sent immediately prior to or upon arrival at the Port of Destination.
d) Reports are to be sent during the Radio Officer's normal duty hours.
e) At the discretion of the vessel, reports may be sent more frequently than the above schedule, as, for example, in heavy weather or under other adverse conditions.

4.2.7.4 Report Format

As previous Amver participants will note, the format described below represents a change which serves two purposes: First, the new format will permit the automated data processing system to enter your information into Amver more accurately and efficiently. Second, the new format conforms to the International Maritime Organisation (IMO) proposed standard, thus reducing the number of different formats in use. As other systems also adopt the IMO format, we will have moved closer to a single format worldwide.

4.2.7.5 Amver System Communications Network

The following methods are recommended for ships to transmit Amver Sail Plan, Position, Deviation and Arrival reports. Details are available on the Amver Website at http://www.amver.com/ .
Via email: amvermsg@amver.com

AMVER/SEAS "Compressed Message" via Inmarsat-C via TELENOR: Amver address: NOAA telephone number entered in the ADDRESSBOOK. For information, please see the instruction sheet for your brand of Inmarsat-C transceiver. AMVER/SEAS software can be downloaded from the Internet at http://www.aoml.noaa.gov/phod/goos/seas/amverseas_software.php

or requested from:

TELENOR Satellite Services
1101, Wootton Parkway
Rockville, Maryland 20852
1-301-838-7800

Email: customercare@telenor.com

HF Radiotelex Service of U.S. Coast Guard Communications Stations: Full information on how to send Amver messages this way can be found at: http://www.navcen.uscg.gov

HF Radio at no cost via Coast Guard Contractual Agreements with the following companies:

a) Mobile Marine Radio (WLO)
b) Mobile (WCL)
c) Marina Del Ray (KNN)
d) Seattle (KLB)

Telex: Amver Address: (0) 230 127594 AMVERNYK

Telefax: To the USCG Operations Systems Centre in Martinsburg: 1-304-264-2505

If messages are relayed through CCG Ships no ship charge will be assessed. All Amver messages forwarded via the stations listed should be addressed to Amver Halifax or Amver Vancouver, rather than COAST GUARD New York, to ensure that no charge is applied in delivery.

4.2.7.6 Amver Voyage Report Types

There are four types of Amver Reports - Sail Plan, Arrival, Position, and Deviation Reports.

a) Reporting format. Each line of Amver Report text starts with a line identifier. Line identifiers are "AMVER" or a single letter. The line identifier and the data items on the line are each separated from each other by a single slash ("/"). Lines are terminated by two slashes ("//").

b) Reporting data. Amver participants need to be familiar with four types of reports - Sail, Arrival, Position, and Deviation Reports. Note that Amver permits sail plan and departure to be combined into a single report. Amver accepts sail plan information separately - for example, several days prior to departure. Report identifiers are as follows:

AMVER/SP//	Sail Plan and Departure
AMVER/PR//	Position Report
AMVER/FR//	Final Arrival Report.
AMVER/DR//	Deviation Report.

c) Details. Paragraph IX includes a discussion of each report type. Each example is followed by an explanation. Note that not all the lines in the example are necessary for each type of report. The required and optional lines are discussed in each section.

4.2.7.7 Other Required Information

Amver also needs other information, which might be useful in an emergency. This includes data such as the ship length, communications equipment, radio watch schedule, speed, rig, and so forth. This information is collected separately once, by completion of the Search and Rescue Questionnaire (SAR-Q) found on the Amver website at http://www.amver.com/ which is then retained in the automatic data processing system, periodically validated, and used only for search-and-rescue purposes.

4.2.7.8 Release of Information

All voluntary information collected under these instructions will be only released to recognized search-and-rescue authorities. Information regarding vessels required to participate in Amver will be forwarded to the U.S. Maritime Administration, via the keyword MAREP on the Y-Line.

4.2.7.9 Description of Voyage Reports

An example and explanation of each of the four types of Amver reports follows. Numbers in parentheses refer to footnotes at the end of the section.

Sail Plan and Departure Report. The "L" lines contain routing and "turnpoint" information needed by Amver. Amver needs data about every intended turnpoint, but also accepts information about any points along the intended track, even though they might not be turnpoints. Turnpoint information is needed by Amver to maintain plot accuracy.

Table 4-11 - Sail Plan and Departure Report Example

EXAMPLE
AMVER/SP//
A/SANDY JOAN/ABCD//
B/110935Z//
E/145//
F/126//
G/NORVOROSK/4510N/03820E//
I/GIBRALTERGI/3600N/00600W/140730Z//
L/RL/140/4130N/02910E/112000Z//
L/RL/140/4010N/02620E/112300Z//
L/RL/140/3630N/02330E/120330Z//
L/RL/140/3650N/01520E/121500Z//
L/RL/140/3800N/01000E/130100Z//
L/LR/060//
M/GKA/GKM//
V/MD/NURSE//
X/NEXT/REPORT/120900Z//
Z/SITOR/INSTALLED/SELCALL/NUMBER/IS/99999//
Z//EOR
EXPLANATION
Required
AMVER/SP//
A /vessel name/International Radio Call Sign//
B /intended time of departure or departure time// (1)
G /port of departure/latitude/longitude// (2)
I /port of destination/latitude/longitude/estimated time of arrival// (1) (2) (3)
L / ...... route information ...// (1) (3) (4)
Z // end of report.
Optional
E /current course// (5)
F /estimated average speed// (6)
M /current coastal radio station/next coastal radio station, if any//
V /onboard medical resources// (7)
X /up to 65 characters of amplifying comments// (8) (9)

Table 4-12 - Final Arrival Report Example

EXAMPLE
AMVER FR//
A/SANDY/JOAN/ABCD//
K/NEW YORK/US/4040N/07420W/180600Z//
X/PROBLEMS WITH MF XMTR AGENT/ADVISED//
Z//EOR
EXPLANATION
Required
AMVER/FR//
A /vessel name/International Radio Call Sign//
K /port name/latitude/longitude/time of arrival// (1) (3)
Z //end of report.
Optional
X /up to 65 characters of amplifying comments// (8) (9)

Table 4-13 - Position Report Example

EXAMPLE
AMVER/PR//
A/SANDY/JOAN/ABCD//
B/120300Z//
C/3630N/02330E//
E/145//
F/126//
M/GKM//
X/NEXTREPORT/131800Z//
Z//EOR
EXPLANATION
Required
AMVER/PR//
A /vessel name/International Radio Call Sign//
B /time at position// (1)
C /latitude/longitude// (3)
Z //end of report.
Optional
E /current course// (5)
F /average speed// (6)
M /current coastal radio station/ next coastal radio station, if any//
X /up to 65 characters of amplifying comments// (8) (9)

Table 4-14 - Deviation Report Used to Report Sail Plan and Other Changes Example

EXAMPLE
AMVER/DR//
A/SANDY/JOAN/ABCD//
B/120300Z//
E/095//
F/220//
G/NORVOROSK/4470N/03780E//
I/NEW YORK US/4040N/07420W/180800Z//
L/GC/220//
M/GKA/WSL/NMN//
V/MD/NURSE//
X/DIVERTING BEST SPEED TO NEW YORK US//
Z//EOR
EXPLANATION
Required
AMVER/DR//
A /vessel name/International Radio Call Sign//
Z //end of report.
One or more of the following optional items
B /intended time of departure// (1)
E /intended course// (5)
F /intended average speed// (6)
G /port of departure/latitude/longitude// (2)
I /port of destination/latitude/longitude/estimated time of arrival// (1) (2) (3)
L /……route information ….// (1) (3) (4)
M /current coastal radio station/next coastal radio station, if any//
V /onboard medical resources// (7)
X /up to 65 characters of amplifying comments// (8) (9)

Footnotes:

1) All times must be expressed as a six-digit group giving date of month (first two digits), hours and minutes (last four digits). Only Coordinated Universal Time (i.e. Greenwich Mean Time) is to be used. The six-digit date-time-group is to be followed by either Z or GMT. The month is optional, and may be added, if appropriate. The first three digits of the English-language month are used. The following examples are acceptable:

   290900Z 290900 Z 290900Z DEC

2) Port latitude longitude refers to the geographic position of the pilot station. Both port name and geographic position are required from U.S. flag vessels.

3) Latitude is a four-digit group expressed in degrees and minutes, and suffixed with "N" for north or "S" for south. Longitude is a five-digit group expressed in degrees and minutes, and suffixed with "E" for east or "W" for west.

   For example: C/4000N/03500W//

4) The "L" lines contain most of the sail plan information. As many "L" lines as needed may be used. The "L" lines contain routing data to each of the intermediate points, and to the destination. Data about all turnpoints are required, unless the voyage will follow a great circle with no delays at intermediate points. In addition to turnpoint information, data about other points along each leg are useful. Following, is the information desired for each intermediate point: navigation, method, leg speed, latitude, longitude, port or landmark name ETA estimated time of departure.

   For example:

   L/RL/125/0258N/07710W/ABACO/111200Z//
   L/RL/125/0251N/07910W/NWPROVCHAN/112145Z//
   L/RL/125/0248N/08020W/120255Z//
   L/RL/125//

   NAVIGATION METHOD IS REQUIRED. It is either "GC" for great circle, or "RL" for rhumb line.
   LEG SPEED is useful, but is not required. See footnote (6).
   LATITUDE LONGITUDE IS REQUIRED. See footnote (3).
   PORT OR LANDMARK NAME is useful, but is not required.
   ETA IS REQUIRED. See footnote (1).
   ESTIMATED TIME OF DEPARTURE IS REQUIRED, if the ship will lay over at the intermediate point.

   A final NAVIGATION METHOD is required to route the ship to its destination. A final LEG SPEED is useful, but not required.

5) True course is a three-digit group.

6) Speed is a three-digit group in knots and tenths of knots. For example, 20.5 knots would be written as 205, without a period or decimal point.

7) If the optional "V" line is used, one or more of the following is required:

/MD/	for physician
/PA/	for physician's assistant
/NURSE/	
/NONE/	
For example:	V/DOCTOR/NURSE//

8) Any information provided in the Remarks line will be stored in the Amver's automatic data processing system for later review. However, no immediate action will be taken, nor will the information be routinely passed to other organizations. The remarks line cannot be used as a substitute for sending information to other search-and-rescue authorities or organizations. However, Amver will, at the request of other SAR authorities, forward remarks line information to the requesting agencies.

9) Next report information is not currently used by the Amver System, but is expected to aid in future development.

4.2.8 *Differential Global Positioning System (DGPS)*

Since May 2000, Full Operational Service (FOS) of the Canadian Coast Guard DGPS service has been available from 19 DGPS stations located on the East and West coasts of Canada and parts of the Great Lakes. DGPS corrections are broadcast from medium frequency (MF) radiobeacon transmitters located to cover selected marine areas and waterways. The broadcasts are in accordance with international standards for radiobeacon DGPS services. DGPS provides continuous precise positioning of better than 10 metres for 95% or better of the time (provided that suitable DGPS receiver equipment is utilized, properly installed and maintained).

Additional information on the use of the DGPS service will be announced through Notices to Mariners. General information is also available from the CCG Website: http://www.ccg-gcc.gc.ca/CCG-DGPS/Marine-Differential-Global-Positioning-System

The corrections from the DGPS service are calculated at the reference station in the NAD 83 coordinates. To process the information properly, DGPS receivers should be adjusted to the WGS 84 setting. Although WGS 84 and NAD 83 are essentially the same (only a few centimetres difference), it is highly recommended that all DGPS receivers be set to WGS 84 to take full advantage of the precision of DGPS. When utilizing charts other than NAD 83, DGPS latitude and longitude positions must be adjusted to the appropriate datum using the information contained in the charts.

The table that follows provides information on existing DGPS broadcasts. A list of United States Coast Guard (USCG) DGPS transmitters providing coverage in Canadian waters may be obtained directly from the USCG. http://www.navcen.uscg.gov/

Figure 4-7, Figure 4-8, Figure 4-9 and Figure 4-10 show the nominal coverage from existing broadcast stations. Users should be aware that coverage is subject to short and long term variations due to environmental and seasonal conditions.

4.2.8.1 Canadian Coast Guard DGPS Broadcasts

Table 4-15 - St. Lawrence River, Atlantic Coast, Great Lakes and Pacific Coast

Station Name	Location NAD 83	Frequency and Transmission Rate	IALA Reference Station ID	IALA Radio Beacon ID
St-Lawrence River and Atlantic Coast				
St.-Jean sur Richelieu, Que.	45°19.28'N 073°18.62'W	296 kHz 200bps	312, 313	929
Lauzon, Que.	46°48.74'N 071°09.56'W	309 kHz 200bps	316, 317	927
Rivière du Loup, Que.	47°45.62'N 069°36.34'W	300 kHz 200bps	318, 319	926
Moisie, Que.	50°11.71'N 066°06.64'W	313 kHz 200bps	320, 321	925
Point Escuminac, N.B.	47°04.40'N 064°47.90'W	319 kHz 200bps	332, 333	936
Partridge Island, N.B.	45°14.39'N 066°03.22'W	295 kHz 200bps	326, 327	939
Western Head, N.S.	43°59.40'N 064°39.72'W	312 kHz 200bps	334, 335	935

Station Name	**Location NAD 83**	**Frequency and Transmission Rate**	**IALA Reference Station ID**	**IALA Radio Beacon ID**
Hartlen Point, N.S.	44°35.54'N 063°27.12'W	298 kHz 200bps	330, 331	937
Fox Island, N.S.	45°19.77'N 061°04.76'W	307 kHz 200bps	336, 337	934
Cape Race, N.L.	46°45.70'N 053°10.82'W	315 kHz 200bps	338, 339	940
Cape Ray, N.L.	47°38.07'N 059°14.23'W	288 kHz 200bps	340, 341	942
Rigolet, N.L.	54°10.68'N 058°26.64'W	299 kHz 200bps	344, 345	946
Cape Norman, N.L.	51°29.93'N 055°49.49'W	310 kHz 200bps	342, 343	944
Great Lakes and St. Lawrence River				
Cardinal, Ont.	44°47.28'N 075°25.28'W	306 kHz 200bps	308, 309	919
Wiarton, Ont.	44°44.84'N 081°06.69'W	286 kHz 200bps	310, 311	918
Pacific Coast				
Alert Bay, B.C.	50°35.19'N 126°55.49'W	309 kHz 200 bps	300, 301	909
Amphitrite Point, B.C.	48°55.46'N 125°32.53'W	315 kHz 200 bps	302, 303	908
Richmond, B.C.	49°05.74'N 123°10.61'W	320 kHz 200 bps	304, 305	907
Sandspit, B.C.	53°14.12'N 131°48.54'W	300 kHz 200 bps	306, 307	906

Figure 4-7 - DGPS Coverage - East Coast

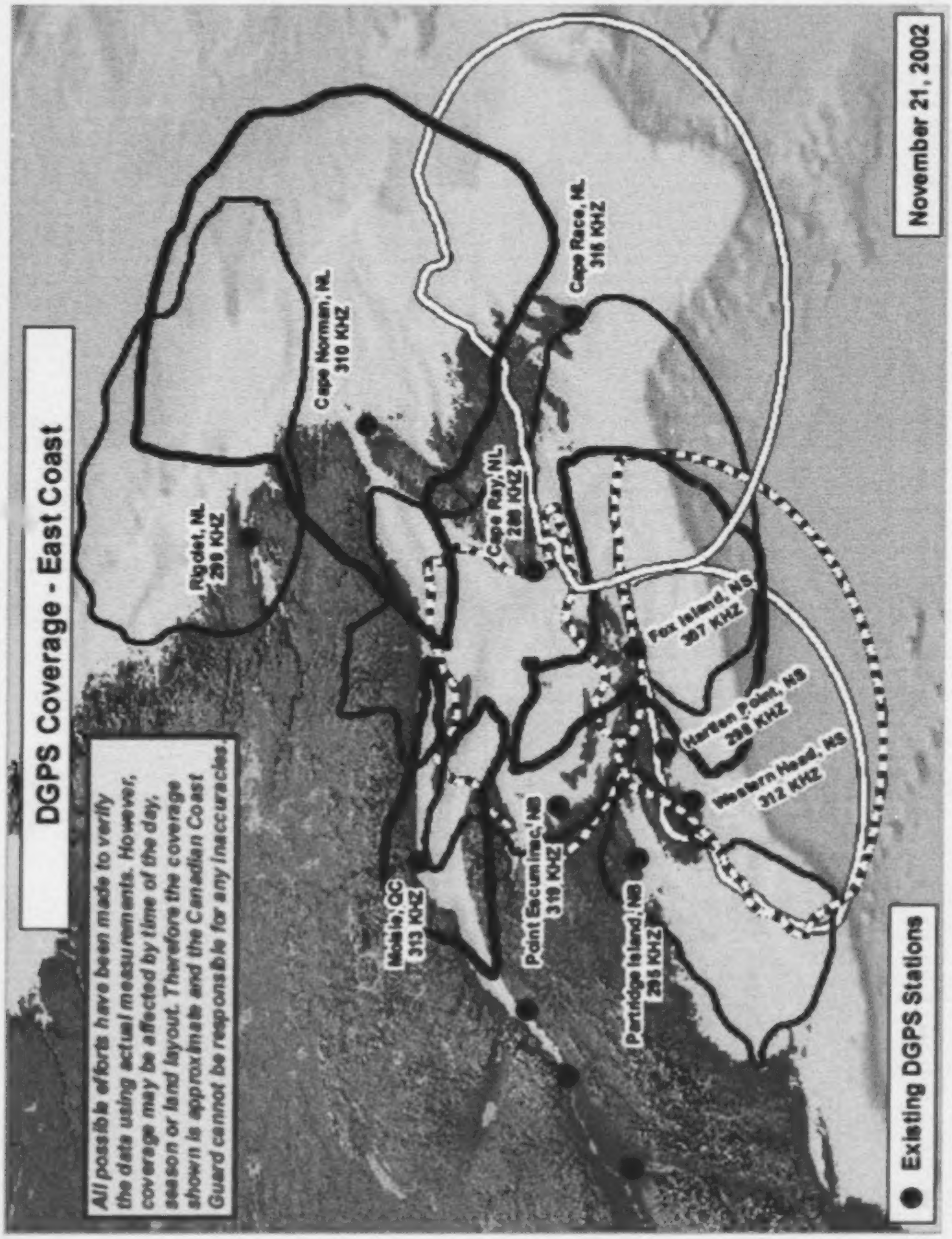
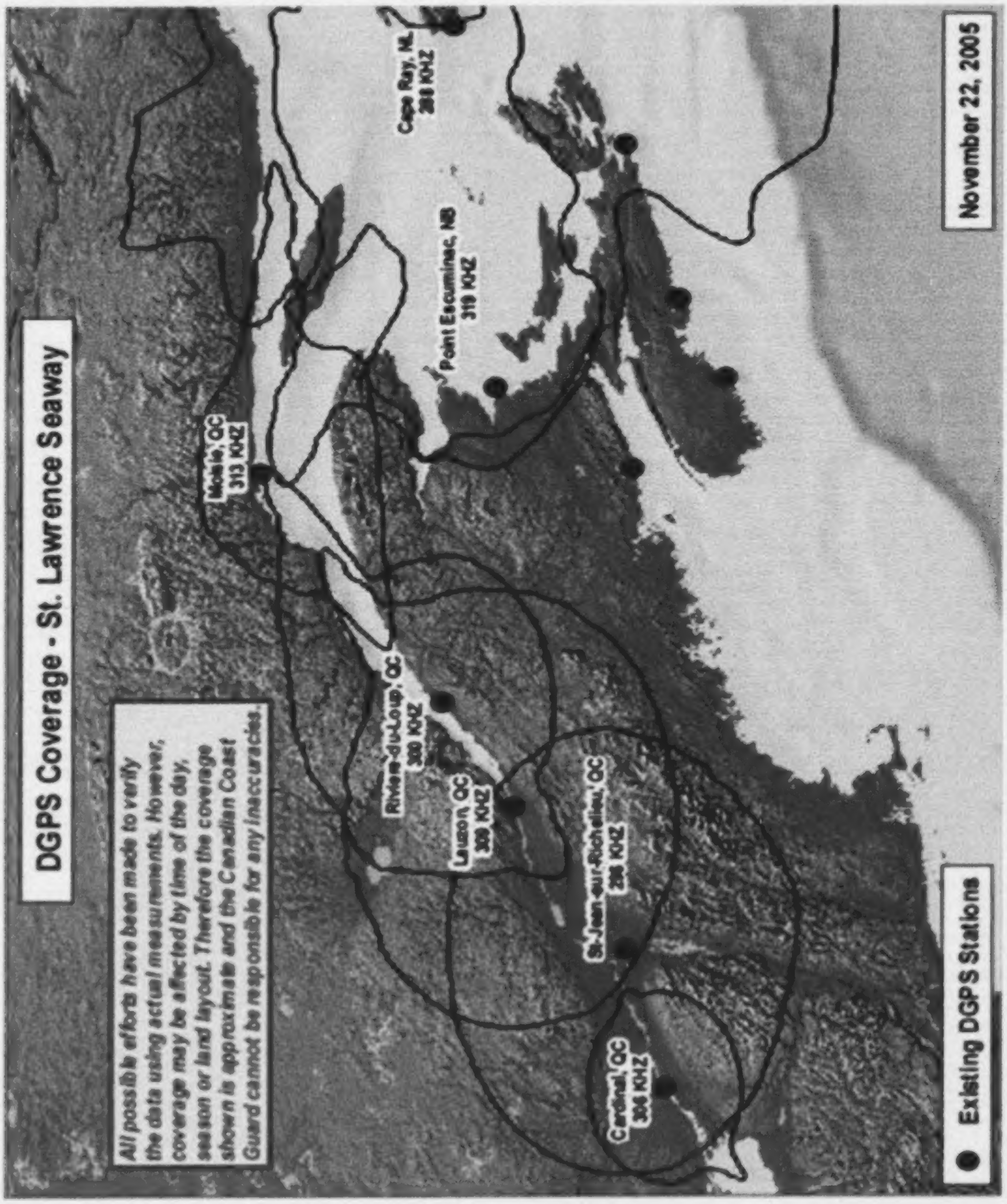

DGPS Coverage - East Coast
All possible efforts have been made to verify the data using actual measurements. However, coverage may be affected by time of the day, season or land layout. Therefore the coverage shown is approximate and the Canadian Coast Guard cannot be responsible for any inaccuracies
Rigolet, NL 299 KHZ
Cape Norman, NL 310 KHZ
Cape Race, NL 315 KHZ
Cape Ray, NL 288 KHZ
Fox Island, NS 307 KHZ
Hartlen Point, NS 298 KHZ
Western Head, NS 312 KHZ
Moisie, QC 313 KHZ
Point Escuminac, NB 319 KHZ
Partridge Island, NB 295 KHZ
November 21, 2002
● Existing DGPS Stations

Figure 4-8 - DGPS Coverage - St. Lawrence Seaway



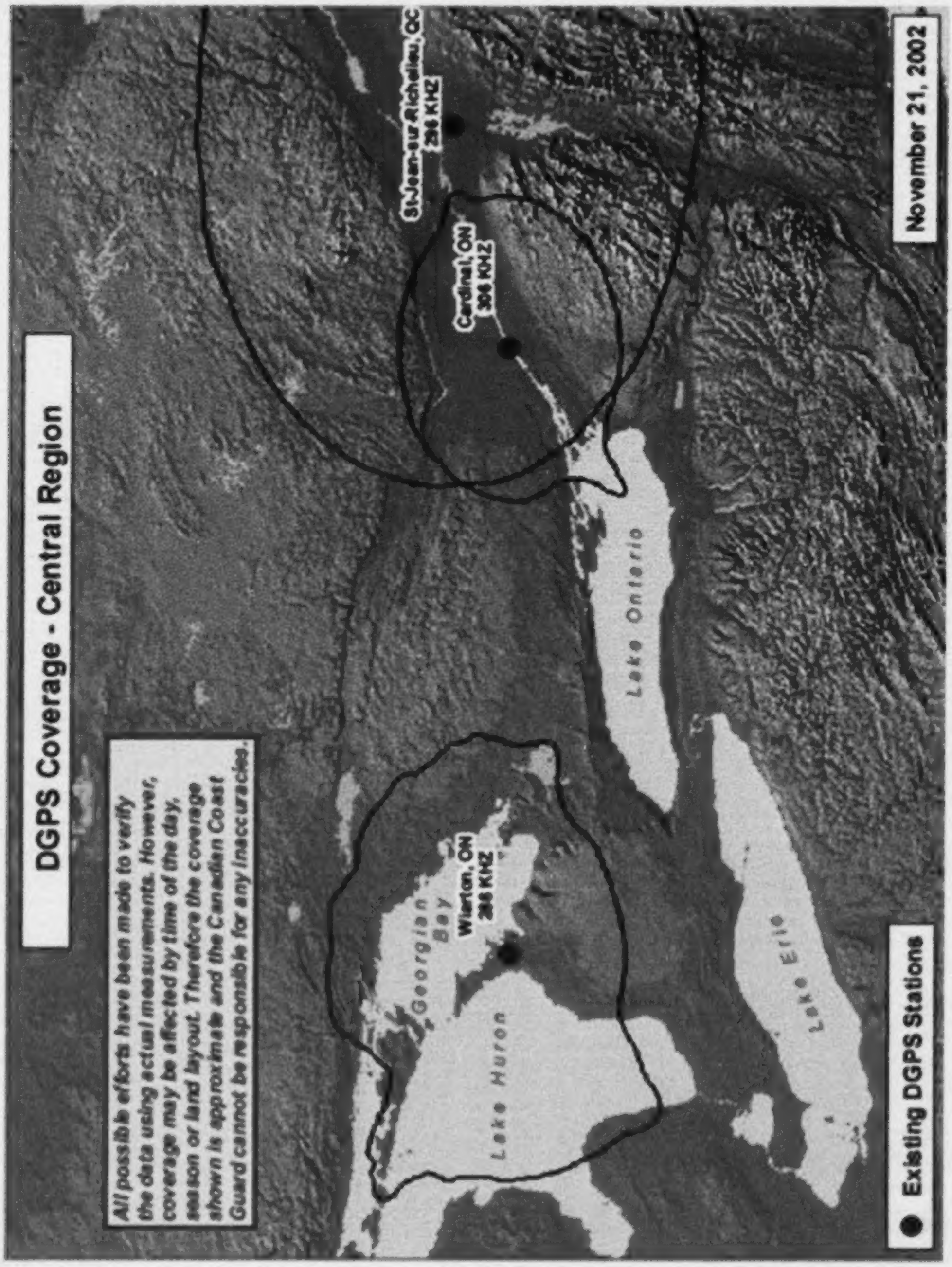
DGPS Coverage - St. Lawrence Seaway

All possible efforts have been made to verify the data using actual measurements. However, coverage may be affected by time of the day, season or land layout. Therefore the coverage shown is approximate and the Canadian Coast Guard cannot be responsible for any inaccuracies.

November 22, 2005

Cape Ray, NL
288 KHZ
Point Escuminac, NB
319 KHZ
Moisie, QC
313 KHZ
Rivière-du-Loup, QC
300 KHZ
Lauzon, QC
309 KHZ
St-Jean-sur-Richelieu, QC
296 KHZ
Cardinal, QC
306 KHZ
● Existing DGPS Stations

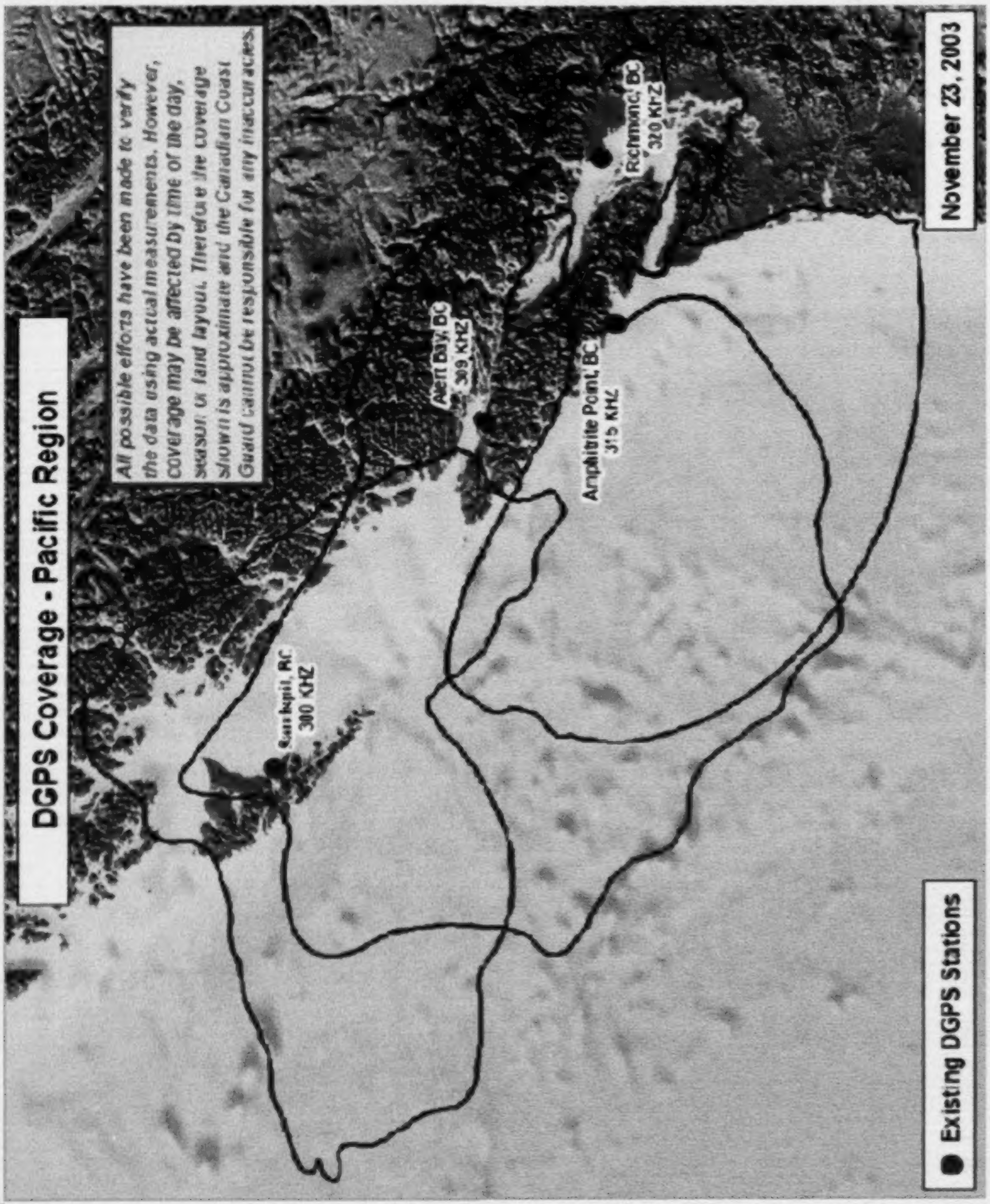
Figure 4-9 - DGPS Coverage - Central Region



DGPS Coverage - Central Region
St-Jean-sur-Richelieu, QC
296 KHZ
Cardinal, ON
306 KHZ
Wiarton, ON
286 KHZ
Georgian Bay
Lake Huron
Lake Ontario
Lake Erie
● Existing DGPS Stations
November 21, 2002

All possible efforts have been made to verify the data using actual measurements. However, coverage may be affected by time of the day, season or land layout. Therefore the coverage shown is approximate and the Canadian Coast Guard cannot be responsible for any inaccuracies.

Figure 4-10 - DGPS Coverage - Pacific Region


DGPS Coverage - Pacific Region
Richmond, BC 320 KHZ
Alert Bay, BC 309 KHZ
Amphitrite Point, BC 315 KHZ
Sandspit, BC 300 KHZ
November 23, 2003
● Existing DGPS Stations

All possible efforts have been made to verify the data using actual measurements. However, coverage may be affected by time of the day, season or land layout. Therefore the coverage shown is approximate and the Canadian Coast Guard cannot be responsible for any inaccuracies.

4.2.9 *Pre-Arrival Information Report (PAIR)*

Note: Pursuant to the Marine Transportation Security Regulations (MTSR), the Security Measures Respecting Designated Tall Ship Events and the Security Measures Respecting Tall Ships and Marine Facilities that Interface with Tall Ships; vessels entering Canadian waters are required to submit pre-arrival information to Transport Canada. However please note that the following pre-arrival information requirement does not apply to fishing vessels, pleasure craft, government vessels, nor to vessels operating solely on the Great Lakes or to the portions of a vessel's voyage on the Great Lakes after pre-arrival information has been given prior to its entrance into the St. Lawrence Seaway.

Requirement:
The master of the following vessels (including tall ships), engaged on an international voyage:

a) SOLAS vessels of 500 tons gross tonnage or more;
b) SOLAS and NON-SOLAS vessels carrying 12 passengers or more;
c) NON-SOLAS vessels that are more than 100 tons, gross tonnage; and
d) NON-SOLAS vessels that are a towing vessel engaged in towing a barge astern or alongside or pushing ahead, if the barge is carrying certain dangerous cargoes,

cannot enter Canadian waters until they submit their pre-arrival information to Transport Canada:

a) at least 96 hours prior to entering Canadian Waters
b) if the duration of the segment of the voyage before entering Canadian waters is less than 96 hours but more than 24 hours, at least 24 hours before entering Canadian waters; or
c) if the duration of the segment of the voyage before entering Canadian waters is less than 24 hours, as soon as practicable before entering Canadian waters but no later than the time of departure from the last port of call.

The preferred method of receiving Pre-Arrival Information is via the 96-Hour PAIR PDF form. Forms can be obtained by emailing:

TC.PAIR-NPA.TC@tc.gc.ca – to receive an English PAIR Form
TC.NPA-PAIR.TC@tc.gc.ca – to receive a French PAIR Form

Once an email is sent, an attached .PDF form will automatically be forwarded to the requestor. Forms can be saved and emailed to Transport Canada according to one of the following:

Vessels entering WESTERN CANADA
Transport Canada Marine Security Operations Centre West
MARSECW@tc.gc.ca
1-250-363-4850

Vessels entering EASTERN CANADA, the ST. LAWRENCE SEAWAY or the CANADIAN ARCTIC
Transport Canada Marine Security Operations Centre East
MARSECE@tc.gc.ca
1-902-427-8003

It is the responsibility of the Master of the vessel to ensure that all information provided to the Government of Canada (Transport Canada) in the PAIR is complete and accurate. Masters of vessels subject to the *Marine Transportation Security Regulations* (as described above) failing to submit, or submitting incomplete or inaccurate pre-arrival information, risk subjecting their vessel to control actions such as, but not limited to: inspection, detention, redirection or expulsion from Canadian waters.

All reasonable measures shall be taken whenever a change occurs in the information previously provided in any pre-arrival information made pursuant to the *Marine Transportation Security Regulations, to the Security Measures Respecting Designated Tall Ship Events* and to the *Security Measures Respecting Tall Ships and Marine Facilities that Interface with Tall Ships*, to Transport Canada. It should be noted that:

a) that the vessel does not enter Canadian waters unless the changed has been reported; and
b) in the case of a change that has occurred after the vessel has entered Canadian waters, that the change is reported before the vessel's first interface with a marine facility in Canada.

If, for any reason, vessels are unable to send the PAIR via the above preferred methods, the following contingencies should be considered:

a) if unable to get a digital .PDF form, see the section below for the required information
b) if the email system is unserviceable, the ship may send the required information (see section below) via any Canadian Coast Guard Marine Communications and Traffic Services (MCTS) centre. Contact information for MCTS Centres may be found in Part 2 of this publication.

The vessel's pre-arrival information shall include the following:

a) its name;
b) its country of registry;
c) the name of its registered owner;
d) the name of its operator;
e) the name of its classification society (not applicable to tall ships);
f) its international radio call sign;
g) its International Ship Security Certificate, Canadian Vessel Security Certificate or ship security compliance document number;
h) its International Maritime Organization number, if it is a SOLAS ship;
    i. the IMO Unique Company Identification Number of its company and the IMO Unique Registered Owner Identification Number of its owner
i) the date of issuance, date of expiry and name of the issuing body of its International Ship Security Certificate, Canadian Vessel Security Certificate, or ship security document;
j) confirmation that the vessel has an approved vessel security plan;
k) the current MARSEC level;
l) a statement of when its last 10 declarations of security were completed;
m) details of any security breaches, security incidents or security threats involving the vessel during the last ten calls at marine facilities and during the time spent at sea between those calls;
n) details of any deficiencies in its security equipment and systems, including the communication systems, and the way in which the master of the vessel intends to correct them;
o) if applicable, the name of its agent and contact person and their 24-hour telephone and facsimile numbers (not applicable to tall ships);
p) if applicable, the name of the vessel's charterer;

q) its position and the date and time at which it reached that position;
r) its course and speed;
s) its first port of call in Canada, with the estimated time of arrival at that port of call, and, if applicable, its final destination with the estimated time of arrival at that destination;
t) the name of a contact person at the marine facility that it will visit and their 24-hour telephone and facsimile numbers;
u) the following information in respect of its last ten marine facilities visited:
    i. the receiving facility;
    ii. the marine facility visited;
    iii. the city and country;
    iv. the date and time of arrival, and
    v. the date and time of departure;
v) a general description of the cargo, including cargo amount (not applicable to tall ships);
w) if applicable, the presence and description of any dangerous substances or devices on board; and
x) the following contact information:
    i. the name of the master
    ii. an email address, if applicable, and
    iii. a satellite or cellular telephone number, if applicable.

Request all pages of the vessel's Interim International Ship Security Certificate (IISSC), International Ship Security Certificate (ISSC), Interim Canadian Vessel Security Certificate (ICVSC), Canadian Vessel Security Certificate (CVSC) or Ship Security Compliance document be included with the Pre Arrival Information Report.

For any additional questions or queries regarding pre-arrival information, please contact the appropriate Marine Security Operations Centre (East or West) via email or telephone as provided earlier in this section.

4.3 SERVICES

4.3.1 *Notices to Shipping*

Notices to Shipping (NOTSHIPs) issued based on unique regional areas and are assigned an alphanumeric designator. The alphanumeric designator consists of an alpha character which identifies the Canadian Coast Guard NOTSHIPs issuing authority. The alpha character is followed by a number commencing with the number *"1" for the first NOTSHIP issued* each year and subsequently increasing with each new notice until years end. Alpha designators utilized in Canadian NOTSHIPs are as follows:

A – Arctic
C – Central
H – Athabasca-Mackenzie Watershed
M – Maritimes
N – Newfoundland
P – Western
Q – Quebec

4.3.1.1 Broadcast NOTSHIPs

Broadcast times and radio frequencies for NOTSHIP broadcasts by CCG MCTS Centres are listed in Part 2.

4.3.1.2 Written NOTSHIPs

A Written NOTSHIP contains information which is anticipated to remain in effect for an extended period of time. These notices have previously been broadcast in full for an initial period of 48 hours and then placed, for an additional period of 5 days, on the Active NOTSHIP List which lists the NOTSHIP number and provides a brief description. Written NOTSHIPs bear the same number as the corresponding broadcast NOTSHIP.

Written NOTSHIPs are available as listed below:

Table 4-16 - Distribution of Written Notices to Shipping

Designator	NOTSHIP Authority	Email	Internet
A and H	C&A Region, Arctic Sector	X	http://www.ccg-gcc.gc.ca/eng/CCG/Notship
C	C&A Region, Great Lakes Sector	X	
Q	C&A Region, St-Lawrence Sector	X	http://www.ccg-gcc.gc.ca/eng/CCG/Notship
M	Maritimes Region		http://www.ccg-gcc.gc.ca/eng/CCG/Notship
N	Newfoundland and Labrador Region		http://www.ccg-gcc.gc.ca/eng/CCG/Notship
P	Western Region		http://www.ccg-gcc.gc.ca/Marine-Communications/Home

Masters are reminded of the regulatory requirement to report any danger, potential danger or hazard to navigation which they may encounter. Reports should be forwarded to the appropriate MCTS Centre as soon as possible to ensure the widest distribution to mariners through broadcast NOTSHIPs.

4.3.1.3 Information Updates

Notices to Mariners contain information which serves to correct charts and related publications. Up-to-date information is available to vessels inbound for Canadian waters on any changes which have occurred between the date of issue of the most recent monthly edition of Canadian Notices to Mariners held on board. Vessels wishing to avail themselves of this service should send their request directly to *ECAREG Canada, NORDREG Canada or* vts.rupert@innav.gc.ca. Requests may also be routed via any MCTS Centre as listed in Part 2 of this document.

When making this request the following information shall be included:

a) ship's name and call sign;
b) present position, destination and intended route;
c) most recent monthly edition of Canadian Notices to Mariners held on board; and
d) list of recent Notices to Shipping held on board.

Ice information, ice routing and icebreaker assistance may be obtained through the Eastern Canada Traffic System (ECAREG CANADA) or the Northern Canada Vessel Traffic Services (NORDREG CANADA). Refer to Notice Number 6 of the Annual Edition, Notices to Mariners or the publication "Ice Navigation in Canadian Waters" for additional information.

4.3.2 *NAVTEX Services in Canada*

Under GMDSS, the NAVTEX is part of the mandatory equipment carriage requirement for SOLAS vessels. Canada provides the International NAVTEX Service in English on 518 kHz from eight strategically located MCTS Centres. Additionally, Canada provides the National NAVTEX Service in French on 490 kHz from four bilingual MCTS Centres.

Table 4-17 - Transmitting sites where NAVTEX Service is available

Controlled by	Site	Position	Range (NM)	ID 518 kHz (English)	ID 490 kHz (French)
Placentia MCTS	Robin Hood Bay	47º36.65'N 052º40.18'W	300	O	
Labrador MCTS	Cartwright	53º42.52'N 057º01.35'W	300	X	
Sydney MCTS	Port Caledonia	46º11.15'N 059º53.77'W	300	Q	J
Halifax MCTS	Chebogue	43º44.65'N 066º07.32'W	300	U	V
Les Escoumins MCTS	Moisie	50º11.75'N 066º06.74'W	300	C	D
Sarnia MCTS	Pass Lake	48º33.80'N 088º39.37'W	300	P	
Prescott MCTS	Ferndale	44º56.22'N 081º14.00'W	300	H	

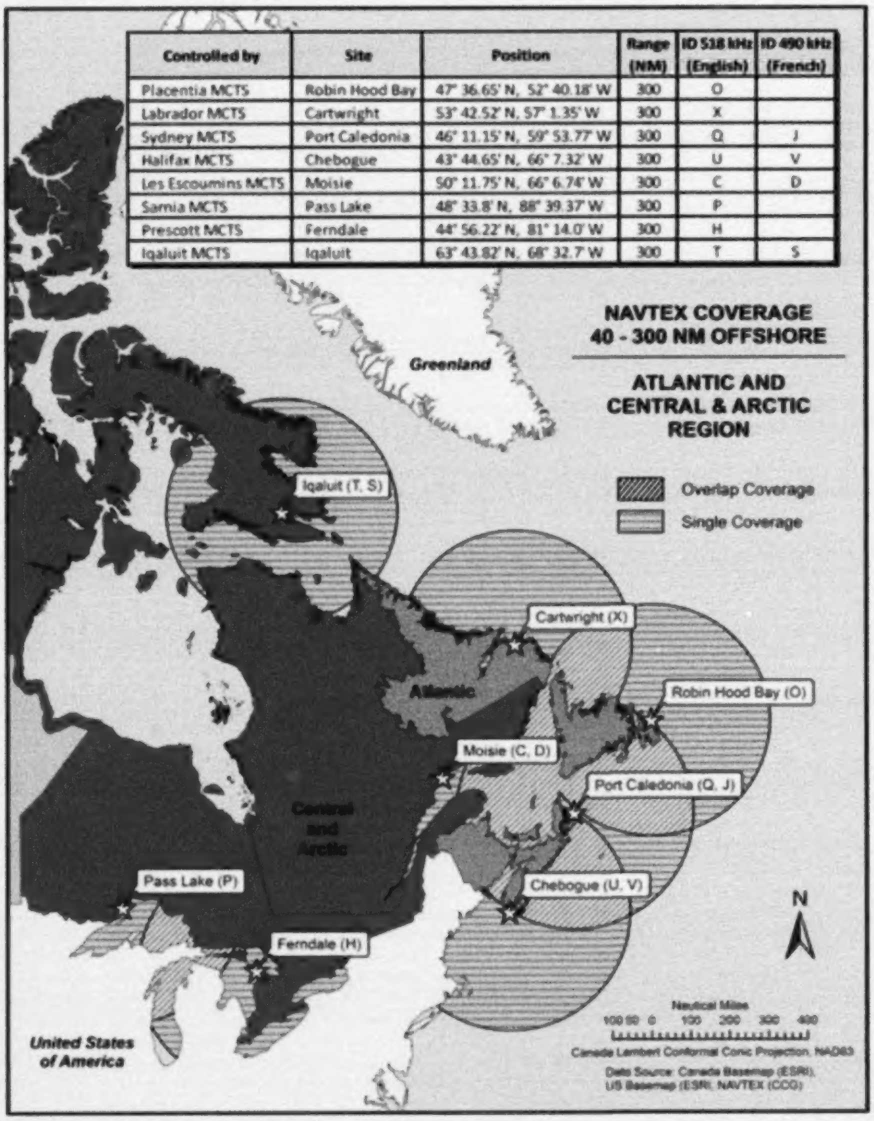
Controlled by	**Site**	**Position**	**Range (NM)**	**ID 518 kHz (English)**	**ID 490 kHz (French)**
Iqaluit MCTS	Iqaluit	63º43.82'N 068º32.70'W	300	T	S
Prince Rupert MCTS	Amphitrite Point	48º55.28'N 125º32.38'W	300	H	
Prince Rupert MCTS	Digby Island	54º18.05'N 130º24.17'W	300	D	

The above noted NAVTEX services are provided on a time-shared basis for the broadcast of the following subject indicator content:

(A) Navigational Warnings
(B) Meteorological Warnings
(C) Ice Reports
(D) Search and Rescue Information/Tsunami
(E) Meteorological Forecasts
(G) AIS Service Messages
(J) GPS Messages

Broadcast time and content is shown in individual MCTS Centre listings.

Figure 4-11 - NAVTEX Coverage - 300 NM - Atlantic and Central and Arctic

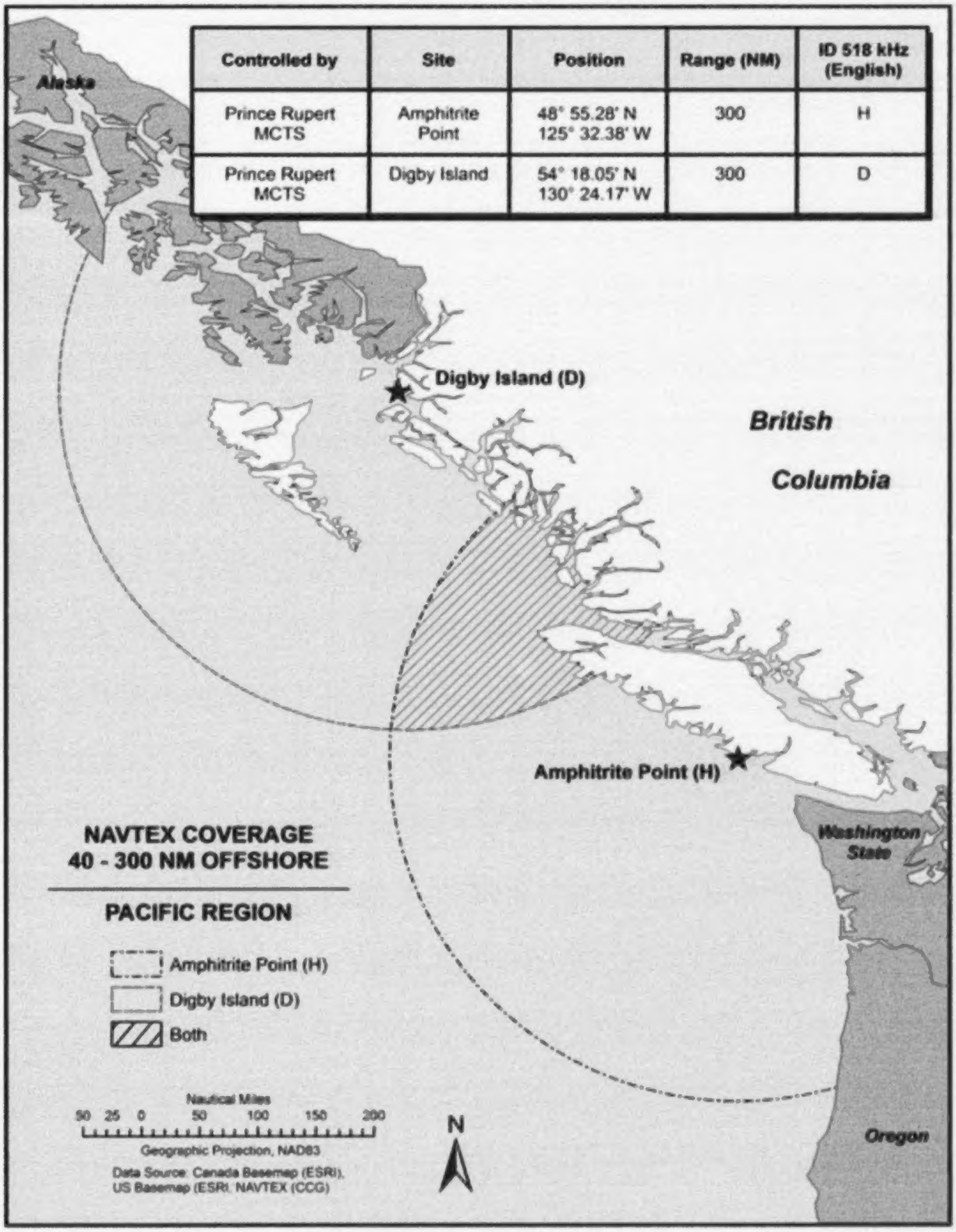


Controlled by	Site	Position	Range (NM)	ID 518 kHz (English)	ID 490 kHz (French)
Placentia MCTS	Robin Hood Bay	47° 36.65' N, 52° 40.18' W	300	O	
Labrador MCTS	Cartwright	53° 42.52' N, 57° 1.35' W	300	X	
Sydney MCTS	Port Caledonia	46° 11.15' N, 59° 53.77' W	300	Q	J
Halifax MCTS	Chebogue	43° 44.65' N, 66° 7.32' W	300	U	V
Les Escoumins MCTS	Moisie	50° 11.75' N, 66° 6.74' W	300	C	D
Sarnia MCTS	Pass Lake	48° 33.8' N, 88° 39.37' W	300	P	
Prescott MCTS	Ferndale	44° 56.22' N, 81° 14.0' W	300	H	
Iqaluit MCTS	Iqaluit	63° 43.82' N, 68° 32.7' W	300	T	S

NAVTEX COVERAGE
40 - 300 NM OFFSHORE
ATLANTIC AND CENTRAL & ARCTIC REGION
Overlap Coverage
Single Coverage
Greenland
Iqaluit (T, S)
Cartwright (X)
Robin Hood Bay (O)
Atlantic
Moisie (C, D)
Port Caledonia (Q, J)
Central and Arctic
Chebogue (U, V)
Pass Lake (P)
Ferndale (H)
United States of America
N
Nautical Miles
100 50 0 100 200 300 400
Canada Lambert Conformal Conic Projection, NAD83
Data Source: Canada Basemap (ESRI), US Basemap (ESRI), NAVTEX (CCG)

While the indicated coverage footprint of NAVTEX transmitters located at Pass Lake and Ferndale intersect over Lake Michigan, information specifically pertaining to Lake Michigan waters is not included on Navtex broadcasts.

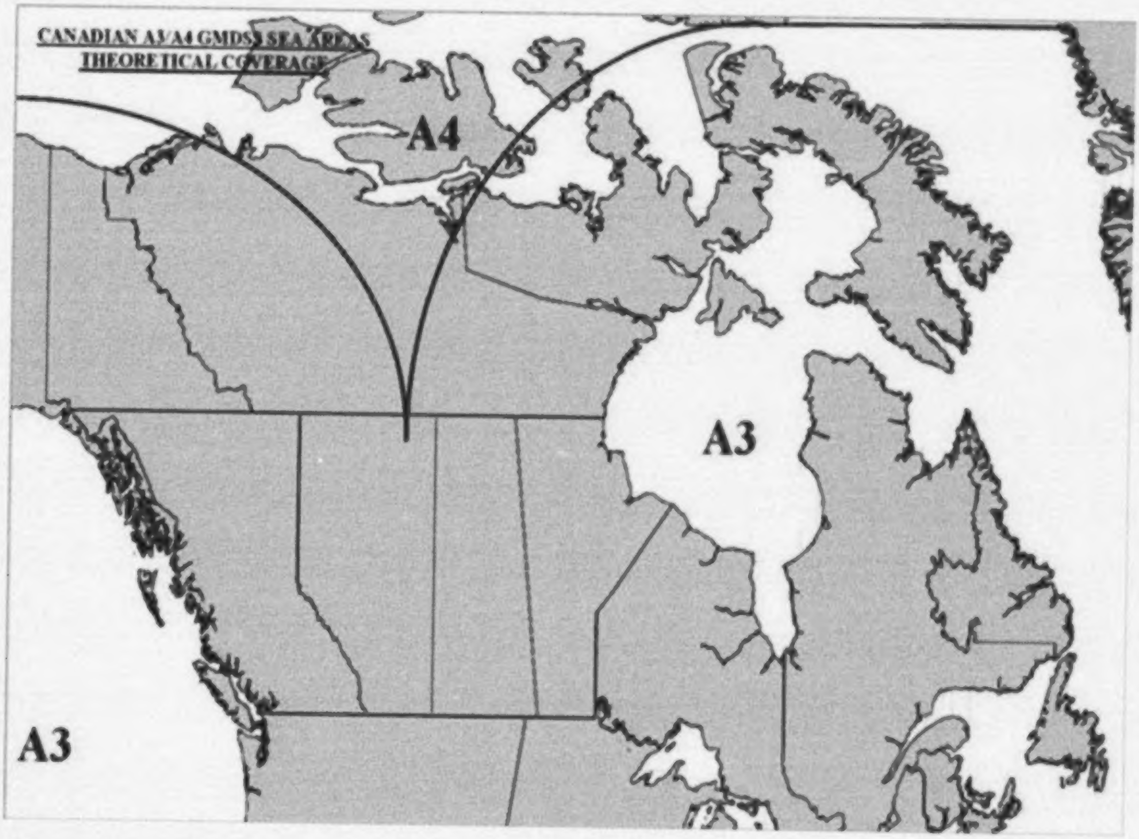
Figure 4-12 - NAVTEX Coverage Western Region



Controlled by	Site	Position	Range (NM)	ID 518 kHz (English)
Prince Rupert MCTS	Amphitrite Point	48° 55.28' N 125° 32.38' W	300	H
Prince Rupert MCTS	Digby Island	54° 18.05' N 130° 24.17' W	300	D

Alaska
Digby Island (D)
British
Columbia
Amphitrite Point (H)
Washington State
Oregon
NAVTEX COVERAGE
40 - 300 NM OFFSHORE
PACIFIC REGION
Amphitrite Point (H)
Digby Island (D)
▨ Both
Nautical Miles
50 25 0 50 100 150 200
Geographic Projection, NAD83
Data Source: Canada Basemap (ESRI), US Basemap (ESRI, NAVTEX (CCG)
N

Figure 4-13 - Canadian A3/A4 GMDSS Sea Areas Theoretical Coverage


CANADIAN A3/A4 GMDSS SEA AREAS
THEORETICAL COVERAGE
A4
A3
A3

Sea area A3 is that sea area of the world not being part of any sea area A1 or A2 within which the elevation angle of an Inmarsat satellite is 5 degrees or more.

Figure 4-14 - Radio Coverage Prediction – Atlantic Ocean

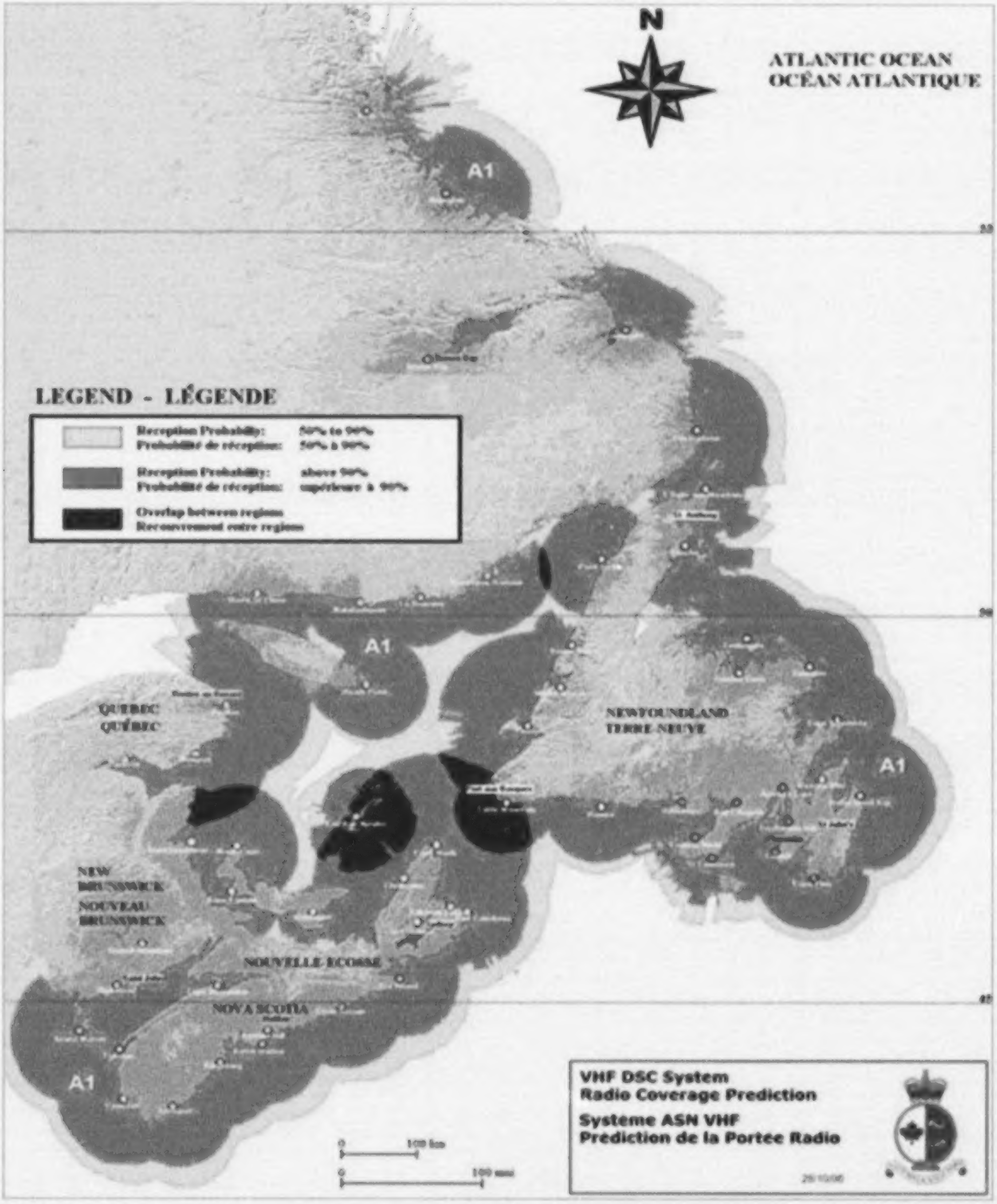

N
ATLANTIC OCEAN
OCÉAN ATLANTIQUE
LEGEND - LÉGENDE
Reception Probability: 50% to 90%
Probabilité de réception: 50% à 90%
Reception Probability: above 90%
Probabilité de réception: supérieure à 90%
Overlap between regions
Recouvrement entre regions
A1
A1
A1
A1
QUEBEC
QUÉBEC
NEWFOUNDLAND
TERRE-NEUVE
NEW BRUNSWICK
NOUVEAU BRUNSWICK
NOUVELLE-ÉCOSSE
NOVA SCOTIA
0 100 km
0 100 nmi
VHF DSC System
Radio Coverage Prediction
Système ASN VHF
Prédiction de la Portée Radio

Figure 4 15 - Radio Coverage Prediction – St. Lawrence

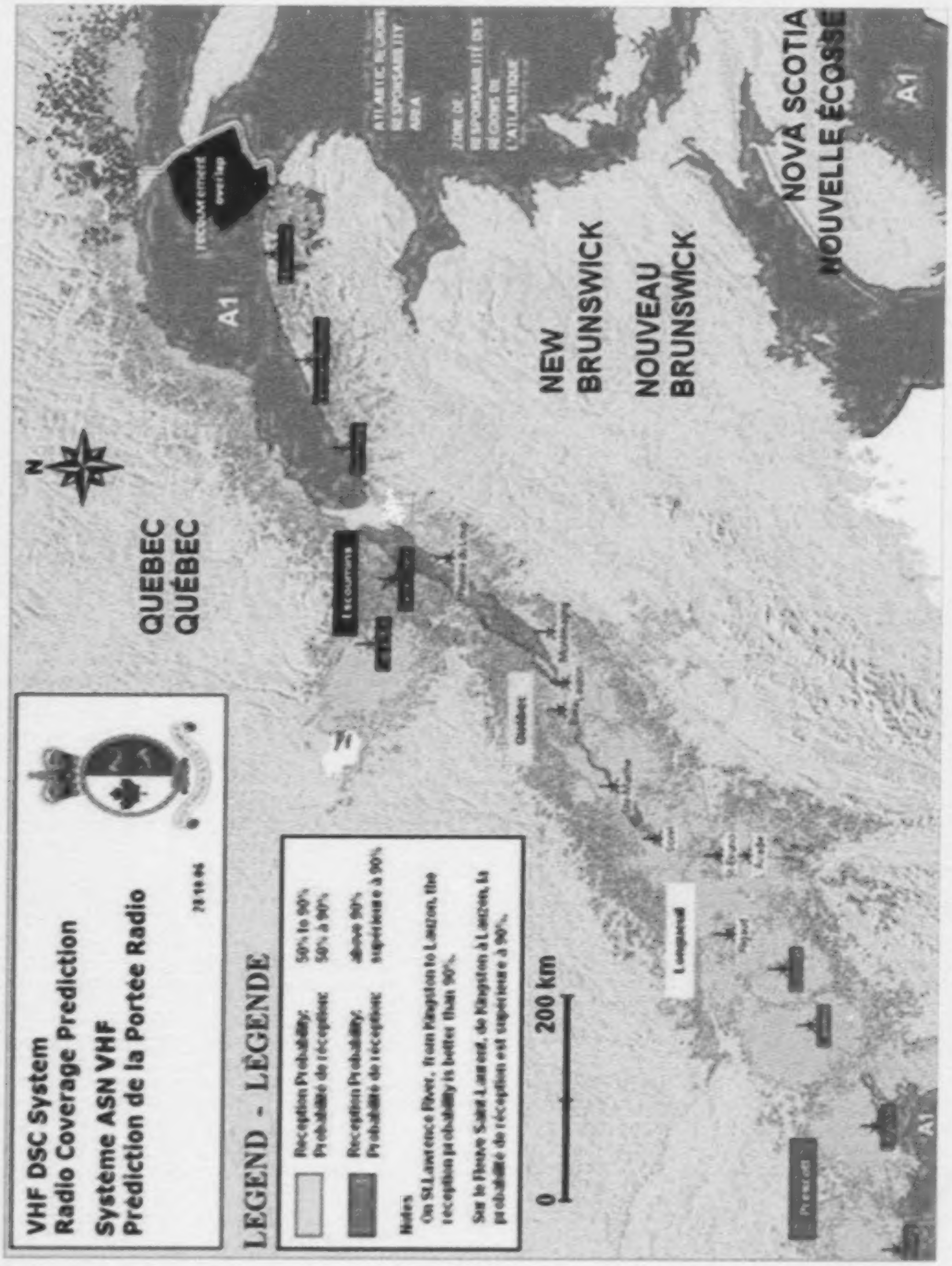

VHF DSC System
Radio Coverage Prediction
Système ASN VHF
Prédiction de la Portée Radio
LEGEND - LÉGENDE
Reception Probability: 50% to 90%
Probabilité de réception: 50% à 90%
Reception Probability: above 90%
Probabilité de réception: supérieure à 90%
Notes
On St.Lawrence River, from Kingston to Lauzon, the reception probability is better than 90%.
Sur le Fleuve Saint-Laurent, de Kingston à Lauzon, la probabilité de réception est supérieure à 90%.
0
200 km
N
QUEBEC
QUÉBEC
A1
NEW BRUNSWICK
NOUVEAU BRUNSWICK
NOVA SCOTIA
NOUVELLE ÉCOSSE
Escoumins
Québec
Longueuil
Prescott

Figure 4-15 - Radio Coverage Prediction - Great Lakes

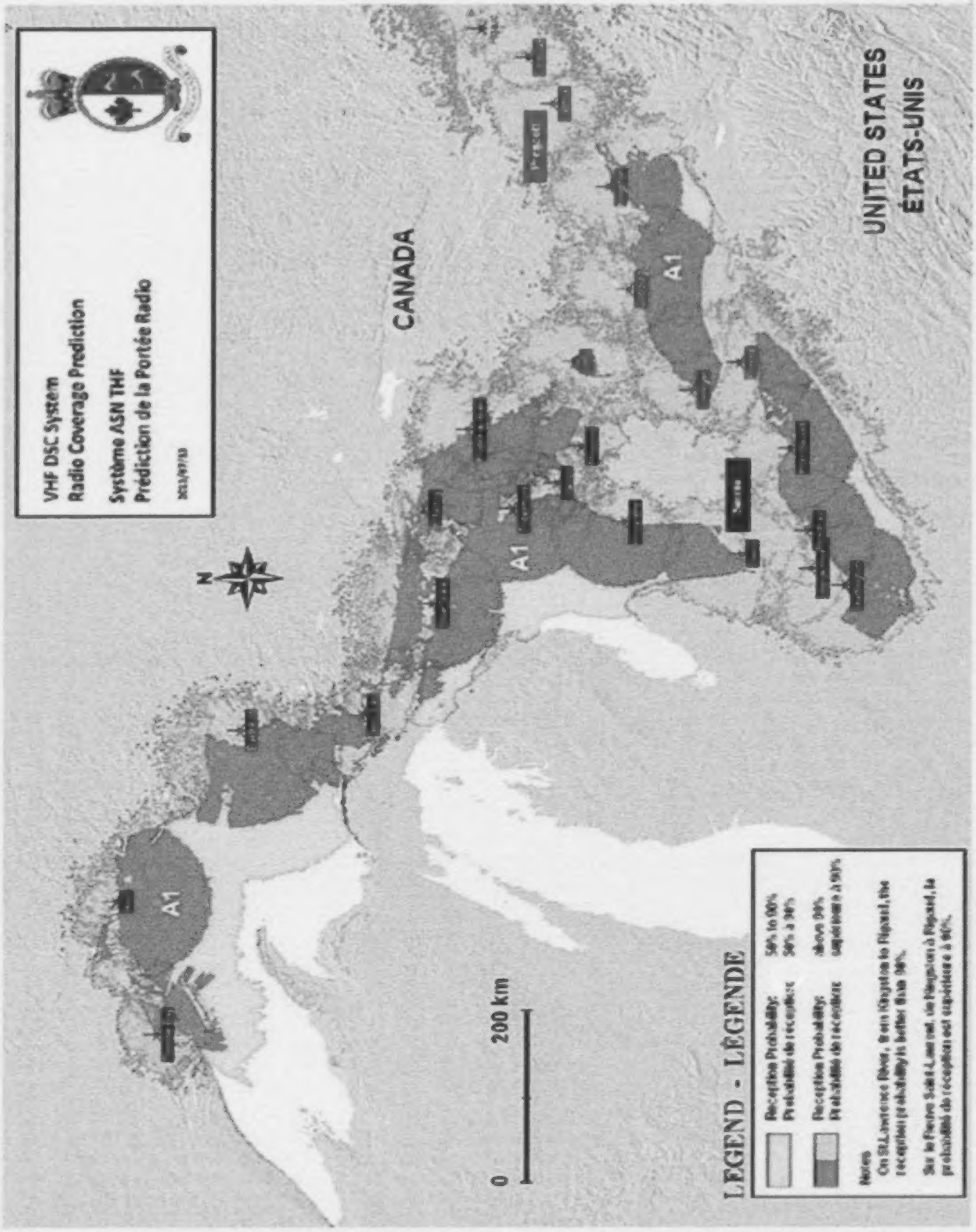
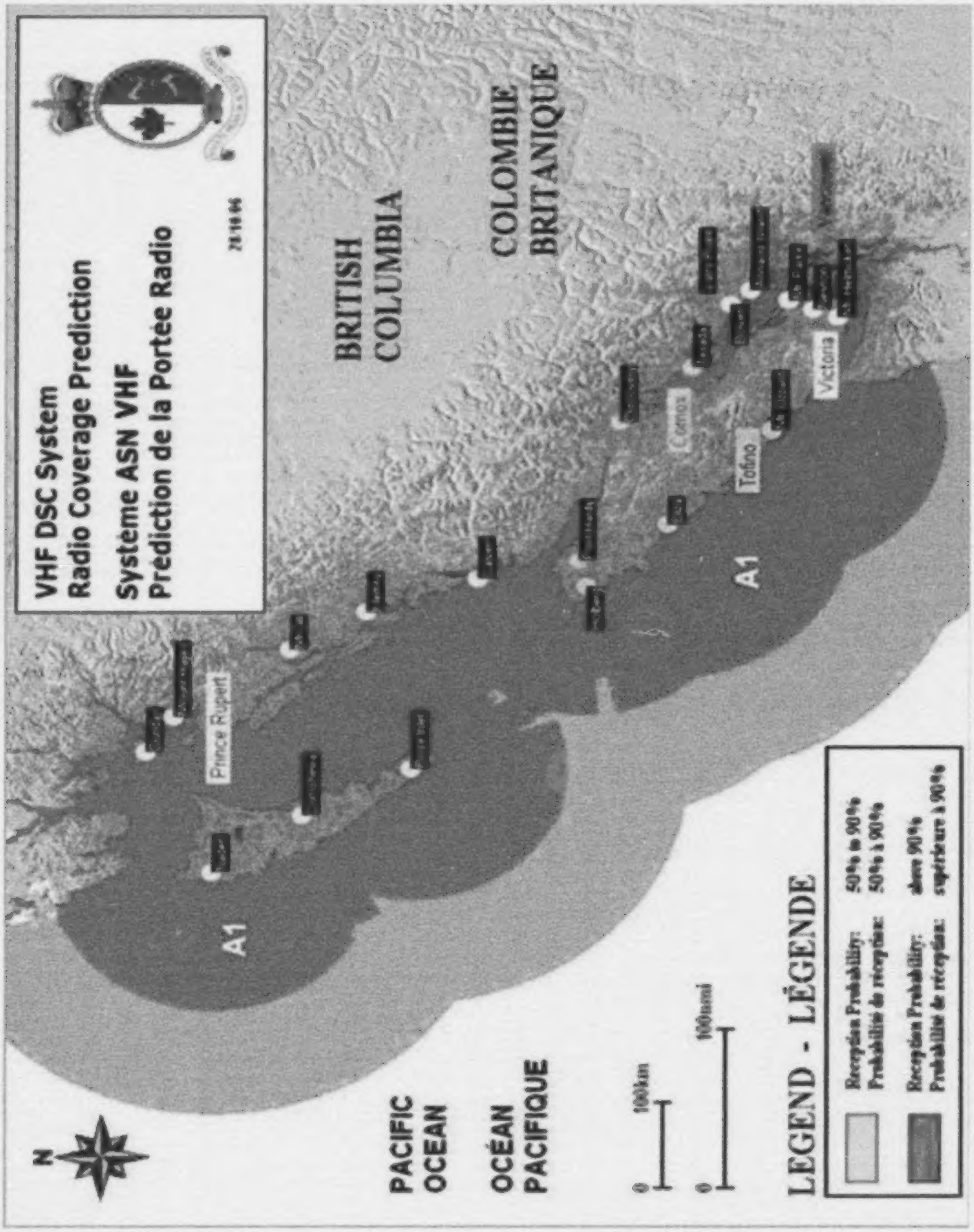

VHF DSC System
Radio Coverage Prediction
Système ASN THF
Prédiction de la Portée Radio
N
CANADA
A1
A1
A1
Prescott
Sarnia
UNITED STATES
ÉTATS-UNIS
0
200 km
LEGEND - LÈGENDE
Reception Probability: 50% to 90%
Probabilité de réception: 50% à 90%
Reception Probability: above 90%
Probabilité de réception: supérieure à 90%
Notes
On St.Lawrence River, from Kingston to Rigaud, the reception probability is better than 90%.
Sur le Fleuve Saint-Laurent, de Kingston à Rigaud, la probabilité de réception est supérieure à 90%.

Figure 4-16 - VHF DSC System Radio Coverage Prediction - Pacific Ocean


VHF DSC System
Radio Coverage Prediction
Système ASN VHF
Prédiction de la Portée Radio
BRITISH COLUMBIA
COLOMBIE BRITANIQUE
Prince Rupert
Comox
Tofino
Victoria
A1
A1
N
PACIFIC OCEAN
OCÉAN PACIFIQUE
0 100km
0 100nmi
LEGEND - LÉGENDE
Reception Probability: 50% to 90%
Probabilité de réception: 50% à 90%
Reception Probability: above 90%
Probabilité de réception: supérieure à 90%

4.3.3 *World-Wide Navigational Warning Service (WWNWS)*

4.3.3.1 NAVAREAS XVII and XVIII: Navigational Warnings

The Canadian Coast Guard has assumed responsibility of NAVAREA coordination for NAVAREAs XVII and XVIII as part of the World-Wide Navigational Warning Service (WWNWS).

Under the WWNWS, navigational warnings containing urgent information relevant to safe navigation that are broadcast in accordance with the Chapter IV of the Safety of Life at Sea Convention (SOLAS).

NAVAREA warnings, which contain information specific to ocean going mariners, remain in force until cancelled or promulgated by other means.

NAVAREA XVII and XVIII warnings that are less than 42 days old are promulgated via SafetyNET.

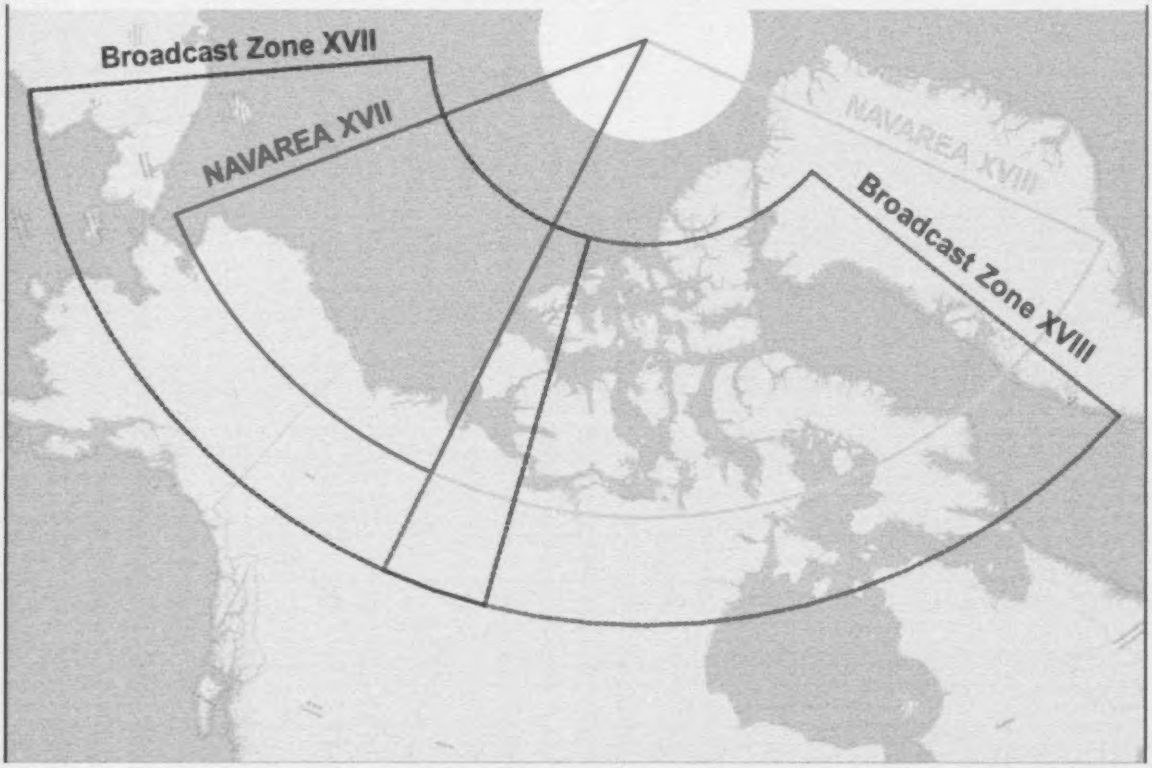
The complete text of all In-Force NAVAREA warnings is available from the Canadian Coast Guard website: www.ccg-gcc.gc.ca/eng/ccg/notship-home.

Alternatively, these may be requested by forwarding an email to the NAVAREA Operations desk at: navarea17.18@innav.gc.ca.

NAVAREAs XVII and XVIII warnings are broadcast in the English language using the following rectangular areas until SafetyNET Inmarsat-C or mini-C Maritime terminals operating in the arctic waters have been updated:

NAVAREA XVII	NAVAREA XVIII
82°00N 175°00E	82°00N 120°00W
82°00N 120°00W	82°00N 035°00W
62°00N 120°00W	62°00N 035°00W
62°00N 175°00E	62°00N 120°00W

Figure 4-17 - Canadian Navarea Zones and Broadcast Areas



Reception of rectangular addressed messages should be automatic providing the ship's position is inside the addressed area. However, mariners should check their manufacture's operation manuals to obtain information on the setting of their EGC equipment to receive relevant SafetyNET messages.

During the Arctic navigational season, NAVAREA XVII and XVIII warnings applicable to the Canadian Search and Rescue boundaries for waters North of 70 degrees latitude are broadcast (with limits to coverage area and reliability) using High Frequency Narrow Band Direct Printing (HF-NBDP) on 8416.5 kHz at 03:30 UTC and 15:30 UTC. Refer to Iqaluit MCTS, Part 2, for details about the broadcast content.

Table 4-18 - Broadcast Schedule

Hour UTC	Service	Frequency or satellite
0330	HF-NBDP	8416.5 kHz*
1100	NAV XVIII	AOR-W
1130	NAV XVII	POR
1530	HF-NBDP	8416.5 kHz*

Hour UTC	Service	Frequency or satellite
2300	NAV XVIII	AOR-W
2330	NAV XII	POR

*available during Arctic navigational season

Comments concerning the reception of NAVAREA XVII and XVIII broadcasts, especially above 75°N, would be appreciated and should be sent to:

NAVAREA XVII and XVIII
Prescott MCTS Centre
Telephone: 613-925-0666
Facsimile: 613-925-4519
E-mail: navarea17.18@innav.gc.ca

4.3.3.2 NAVAREAS IV and XII

The National Geospatial-Intelligence Agency (NGA) of the United States of America is responsible for NAVAREAs IV and XII coordination.

NAVAREA IV covers the North Atlantic Ocean West of 35°W and north of 7°N. NAVAREA IV warnings are broadcasts over the AOR-W satellite at 10:00 UTC and 22:00 UTC. Ice reports for the North Atlantic are broadcast at 12:00 UTC. NAVAREA IV warnings are broadcast over HF-NBDP from: Boston (NMF) at 01:40 UTC on 6314 kHz, 8416.5 kHz, and 12579 kHz and at 16:30 UTC on 8416.5 kHz, 12579 kHz, and 16806.5 kHz.

NAVAREA XII covers the North Pacific Ocean east of 180° and north of the equator, plus the area north of 3°25'S and east of 120°W. NAVAREA XII warnings are broadcasts over the POR satellite at 10:30 UTC and 22:30 UTC. These messages are broadcast over HF-NBDP by Honolulu (NMO) at 03:30 and 17:30 UTC daily, on 8416.5 kHz, 12579 kHz, and 22376 kHz.

Consult the publication NP283 (2) *Admiralty List of Radio Signals*, Volume 3, Part 2, for the listing of all NAVAREA Coordinators and broadcast schedules.

Mariners may also consult the International Maritime Organization circular, COMSAR.1/Circ.51, for an updated list of all NAVAREA Coordinators.

NAVAREA broadcast schedules can be found in Annex 8 of the IMO circular, GMDSS.1/Circ.19 (as amended) GMDSS Master Plan of Shore-Based Facilities for GMDSS.

4.3.3.3 Subject Matter for NAVAREA Warnings Messages

The following subjects are considered suitable for broadcast as NAVAREA warnings. This list is not exhaustive and should be regarded only as a guideline. Furthermore, it presupposes that sufficiently precise information about the item has not previously been disseminated in a Notice to Mariners:

a) casualties to lights, fog signals and buoys and other aids to navigation affecting main shipping lanes;

b) the presence of dangerous wrecks in or near main shipping lanes and if relevant, their marking;

c) establishment of major new aids to navigation or significant changes to existing ones when such establishment or change might be misleading to shipping;

d) the presence of large unwieldy tows in congested waters;

e) drifting hazards including derelict ships, ice, mines, containers and other large items;

f) areas where search and rescue (SAR) and anti-pollution operations are being carried out (for avoidance of such areas);

g) the presence of newly-discovered rocks, shoals, reefs and wrecks likely to constitute a danger to navigation, and, if relevant, their marking;

h) unexpected alteration or suspension of established routes;

i) cable or pipe-laying activities, the towing of large submerged objects for research or exploration purposes, the employment of manned or unmanned submersibles, or other underwater operations constituting potential danger in or near shipping lanes;

j) the establishment of research or scientific instruments in or near shipping lanes;

k) the establishment of offshore structures in or near shipping lanes;

l) significant malfunction of radio-navigation services and shore-based maritime safety information and radio services;

m) information concerning special operations which might affect the safety of shipping, sometimes over wide areas, e.g. naval exercises, missile firings, space missions, nuclear tests, ordnance dumping zones, etc. It is important that where the degree of hazard is known, this information is included in the relevant warning. Whenever possible, such warnings should be originated not less than five days in advance of the scheduled event and reference may be made to relevant national publications in the warning;

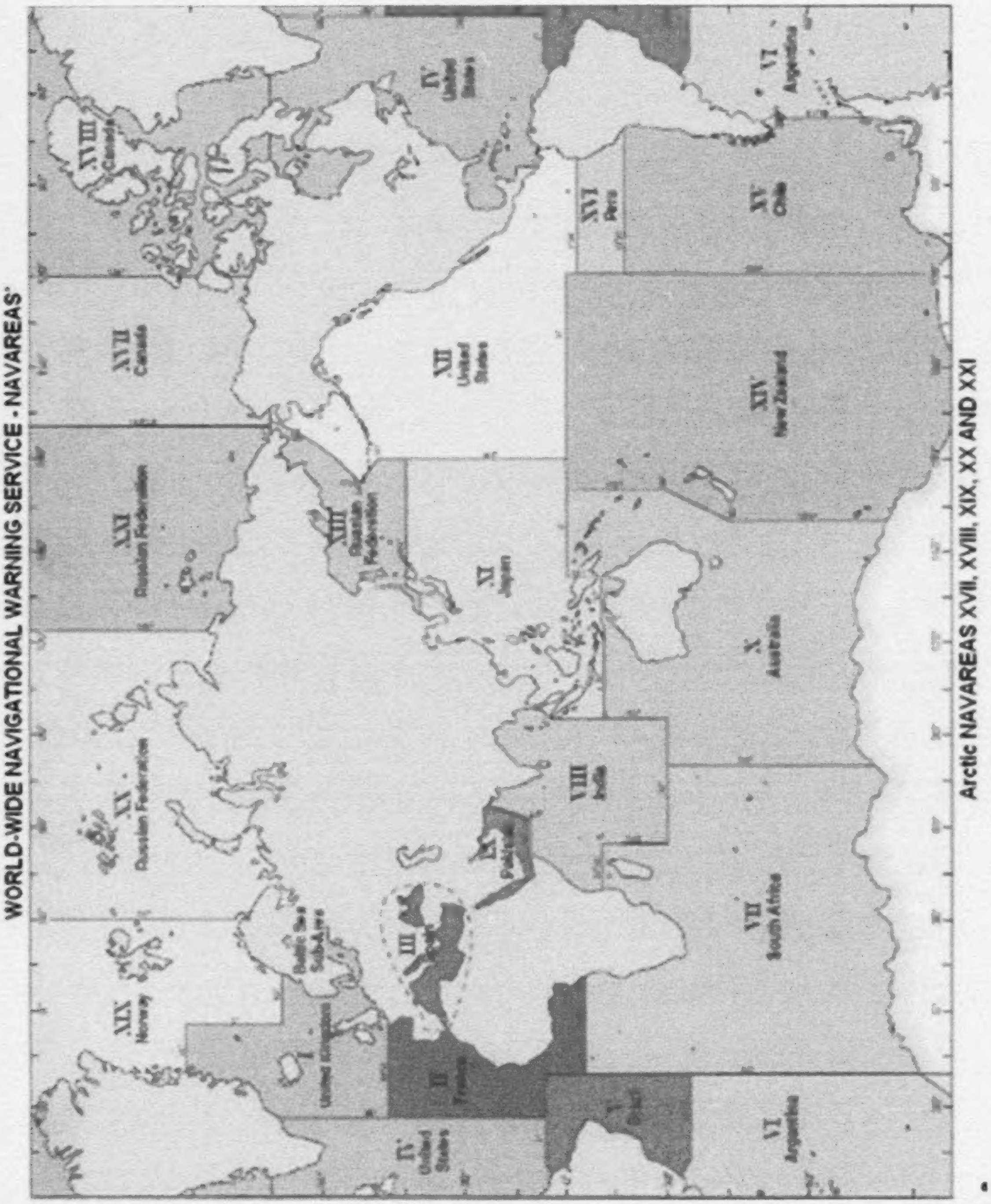
n) acts of piracy and armed robbery against ships;

o) tsunamis and other natural phenomena, such as abnormal changes to sea level;

p) World Health Organization (WHO) health advisory information; and

q) security-related requirements, in accordance with the requirements of the International Ship and Port Facility Security Code only.

Figure 4-18 - World-Wide Navigational Warning Service - NAVAREAs


WORLD-WIDE NAVIGATIONAL WARNING SERVICE - NAVAREAS'
Arctic NAVAREAS XVII, XVIII, XIX, XX AND XXI
XVIII Canada
IV United States
VI Argentina
XVI Peru
XV Chile
XVII Canada
XII United States
XIV New Zealand
XXI Russian Federation
XIII Russian Federation
XI Japan
X Australia
XX Russian Federation
VIII India
IX Pakistan
III
VII South Africa
XIX Norway
Baltic Sea Sub-Area
I United Kingdom
II France
V Brazil
IV United States
VI Argentina

4.3.4 *Cellular Phone (*16) Service - Marine Emergencies*

MCTS Centres in certain parts of Canada are connected to the cellular telephone network system where cellular telephone users can, in an emergency situation only, dial *16 on their cellular telephone to access a MCTS Centre in order to obtain assistance.

Mariners are cautioned that a cellular telephone is not a good substitute for a marine radio because the maritime mobile radio safety system in the southern waters of Canada is based principally on VHF communications. Furthermore, VHF has the advantage that a call can be heard by the closest MCTS Centre(s) and by ships in the vicinity which could provide immediate assistance. On the other hand, the telephone cellular network is a party-to-party system and the benefit of the broadcast mode in an emergency situation cannot be obtained.

Mariners are reminded that the use of marine radio distress frequencies to obtain assistance in an emergency situation is the best option and that cellular telephone should be used only as an alternative should the VHF radiotelephone set not be available. Standard distress alerting equipment, such as marine radio and EPIRBs should never be replaced by cellular phone alone.

Note: Details of this service may be obtained by contacting local cellular telephone companies; however, mariners are cautioned that not all cellular telephone companies provide this service.

4.3.5 *Direction Finding (VHF/DF) Service*

MCTS Centres in certain parts of Canada are provided with VHF/DF equipment, primarily to determine or confirm the bearing, from a DF facility, of a vessel requiring assistance in a distress or other emergency situation. In addition, an estimated line of position from a DF facility can be provided to vessels that are uncertain of their locations. Location of VHF/DF facilities will be found in the appropriate centre listings in Part 2 of this publication. The intent of this service is not to provide a navigation service. Positions must be regarded as estimates only. Mariners are cautioned that any information provided shall be used at their own discretion.

4.3.5.1 Direction Finding Bearings

Any MCTS Centre will, on request, transmit signals that will enable a ship to take a radio bearing with its own direction finder. It is pointed out to masters of ships fitted with direction finding equipment employing DF loops that serious error may result in bearings taken if metallic material or equipment (poles, wires, winches, etc.) are erected in proximity to the DF antenna equipment after calibration.

Masters of ships are urged to exercise caution in the use of commercial radio broadcasting stations as radio beacons. Bearings taken on such stations may be very inaccurate owing to errors caused by coastal refraction and the calibration of the Direction Finder employed may vary considerably due to the wide difference in frequencies used, (i.e. the standard broadcast band spreads over approximately 1060 kHz). In addition, it is advisable to make certain that the position of the broadcast transmitter (not the studio) is accurately known before using it as a navigation aid.

4.3.6 *Sail Plan Service*

All small craft operators, including those making day trips, are encouraged to file a Sail Plan with a responsible person. This person should be instructed to call the Joint Rescue Coordination Centre (JRCC) or Maritime Rescue Sub-Centre (MRSC) if the vessel becomes overdue. The telephone number can be found at the front of most telephone books and should be included with the Sail Plan. In circumstances where it is not possible to file a Sail Plan with a responsible person, a Sail Plan may be filed by telephone, radio or in person, with any CCG MCTS Centre. While at sea, masters/operators who have filed a sail plan with a MCTS Centre are encouraged to file a daily position report during long trips. Upon your return, be sure to close (or deactivate) the sail plan you filed earlier. Forgetting to do so can result in an unwarranted search for you.

The information to be provided should be in accordance with the listing below.

a) vessel identification (boat's name and licence number);
b) sail or power;
c) vessel size and type;
d) colour of hull, deck, and cabin;
e) type of engines;
f) other distinguishing features;
g) radios and channels monitored (MF / HF / VHF);
h) Maritime Mobile Service Identity (MMSI);
i) satellite and/or cellular telephone number;
j) description of life rafts or small boats available;
k) number and type of flares;
l) number of lifejackets PFDs and/or survival suits;
m) other safety equipment;
n) name, address, and telephone number of vessel owner;
o) other information;
p) date and time of departure;
q) number of people on board;
r) departure point;
s) route and stop-over points;
t) destination;
u) estimated date and time of arrival at destination; and,
v) telephone number of an emergency contact person.

4.3.7 *Search and Rescue in Canadian Areas of Responsibility*

The Canadian Forces (CF) in co-operation with the Canadian Coast Guard has overall responsibility for coordination of federal aeronautical and maritime Search and Rescue (SAR) activities in Canada, including Canadian waters and the high seas off the coasts of Canada. The CF provides dedicated SAR aircraft in support to marine SAR incidents. The CCG coordinates maritime SAR activities within this area and provides dedicated maritime SAR vessels in strategic locations. Joint Rescue Coordination Centres (JRCC) are maintained at Victoria, B.C., Trenton, Ont. and Halifax, N.S. These centres are staffed 24 hours a day by Canadian Forces and CCG personnel. Each JRCC is responsible for an internationally agreed upon designated area known as a Search and Rescue Region (SRR). In addition, a Maritime Rescue Sub-Centre (MRSC), staffed by CCG personnel is maintained at Québec, QC to coordinate local marine SAR operations.

Joint Rescue Coordination Centre (JRCC) / Maritime Rescue Sub-Centre (MRSC)

JRCC Halifax, NS	
Telephone:	1-800-565-1582 Maritimes Region 1-800-563-2444 Newfoundland and Labrador Region 902-427-8200 Satellite, Local or out of area
Facsimile:	902-427-2114
Email:	jrcchalifax@sarnet.dnd.ca
MRSC Québec, QC	
Telephone:	1-800-463-4393 Québec Region 418-648-3599 Satellite, Local or out of area
Facsimile:	418-648-3614
Email:	mrscqbc@dfo-mpo.gc.ca
JRCC Trenton, ON	
Telephone:	1-800-267-7270 In Canada 613-965-3870 Satellite, Local or out of area
Facsimile:	613-965-7279
Email:	jrcctrenton@sarnet.dnd.ca
JRCC Victoria, British Columbia	
Telephone:	1-800-567-5111 British Columbia and Yukon 250-413-8933 Satellite, Local or out of area #727 Cellular (#SAR)
Email:	jrccvictoria@sarnet.dnd.ca

4.3.7.1 Canadian Coast Guard Auxiliary or Royal Canadian Marine Search and Rescue in British Columbia

The Canadian Coast Guard Auxiliary (CCGA) or Royal Canadian Marine Search and Rescue (RCM-SAR) is an association of approximately 4500 dedicated volunteers operating close to 1300 vessels to support the CCG in Marine Search and Rescue.

For more information on maritime SAR services in Canada, refer to Section 28 of the Annual Edition of Notices to Mariners, published by the CCG, Marine Navigation Services.

4.3.8 *Marine Communications and Traffic Services Message Service*

4.3.8.1 Messages Handled Without Charge by MCTS Centres

a) messages pertaining to weather or ice information and ice routing;
b) messages concerning aids to navigation;
c) Amver Messages, addressed AMVER HALIFAX;
d) radiomedical messages;
e) messages reporting pollution;
f) messages addressed to a port or a member of the CCG that involve a report of a ship movement, position or condition;
g) messages addressed to a Joint Rescue Co-ordination Centre (JRCC) or Maritime Rescue Sub-Centre (MRSC);
h) pilotage messages;
i) official Naval messages;
j) quarantine messages addressed to "Quarantine"; and
k) messages requesting a doctor to meet a ship on arrival.

4.3.8.2 Weather Messages

Weather reports in the international meteorological code, made at the standard synoptic hours of 00:00, 06:00, 12:00 and 18:00 UTC, are solicited from ships of all nationalities which have been recruited by their own national weather service, or other weather services, to make weather reports on a regular basis. These reports should be made and transmitted to the nearest MCTS Centre, irrespective of the ship's position. In fact, reports made close to, or even within sight of land, are equally important to reports made offshore, due to the greater variability of weather conditions in proximity to a coastline.

4.3.8.3 Pollution Messages

All vessels plying Canadian and adjacent waters are requested to report oil slicks or pollution of any type to the nearest MCTS Centre.

4.3.8.4 Medical Advice Messages

Masters of ships may obtain medical advice by addressing a radiotelegram to "Radiomedical" and routing it via the nearest MCTS Centre which will refer the message to the nearest medical authority and transmit the reply to the ship.

4.3.8.5 Quarantine Messages

1. In the following circumstances only, the person in charge of a vessel shall, by radio (via the nearest MCTS Centre), telephone or email, at least 24 hours prior to the vessel's estimated time of arrival at its port of destination, notify or cause the notification of a quarantine officer at the quarantine station designated in paragraph (3) for that port of the occurrence:

   Where, in the course of a voyage of a vessel,

   a) a member of the crew or a passenger on board the vessel exhibits one or more of these signs or symptoms:
      i) appears obviously unwell;
      ii) cough with blood;
      iii) fever or chills (profuse sweating, unusually flushed or pale skin, shivering);
      iv) shortness of breath or difficulty breathing;
      v) repeated coughing;
      vi) diarrhea;
      vii) headache;
      viii) recent confusion;
      ix) skin rash;
      x) bruising or bleeding without injury; and
      xi) death.

That person(s) should be isolated in order to minimize the exposure of crew and passengers.

   b) the person in charge of the vessel is, during the period:
      i) of four weeks preceding the estimated time of arrival of the vessel; or
      ii) since he last submitted a declaration of health as required by section 16, whichever is the lesser, aware of any instance of illness among the crew or passengers that he suspects is of a communicable nature and may lead to the spread of disease.

   c) a certificate establishing that the vessel has been de-ratted or exempted from de-ratting procedures has expired or is about to expire.

2. At the same time, the person in charge of a vessel shall, by radio, provide the quarantine officer with the following information:
   a) the name and nationality of the vessel;
   b) the ports called at during the voyage of the vessel;
   c) the nature of the cargo on board the vessel;
   d) the number of persons comprising the crew of the vessel;
   e) the number of passengers on board the vessel;
   f) the port of destination of the vessel and the name of the vessel's owner or, if the owner is not in Canada, the name of the vessel's agent in Canada;

g) the condition of all persons on board the vessel and details of any death or illness occurring during the voyage;
h) whether the body of any person is being carried on the vessel;
i) the estimated time of arrival of the vessel at the port of destination; and
j) the date and place of issuance of any de-ratting certificate or de-ratting exemption certificate applicable to the vessel.

3. For the purposes of paragraph (1), the quarantine station for vessels bound for
   a) a port in the Province of Nova Scotia, New Brunswick, Prince Edward Island, or Newfoundland is the Halifax Nova Scotia Quarantine Station at 902-873-7659 (24 hour phone line) or by email at quarantineeast@phac-aspc.gc.ca if notification is 48 hours or greater prior to arrival;
   b) a port in the Province of Québec or any Canadian port via the St. Lawrence River, is the Montréal Québec Quarantine Station at 514-229-2561(24 hour phone line) or by email at quarantineeast@phac-aspc.gc.ca if notification is 48 hours or greater prior to arrival;
   c) a port in the Province of Ontario or a port in the Nunavut Territories, is the Toronto, Ontario Quarantine Station at 416-315-5039 (24 hour phone line) or by email at quarantineeast@phac-aspc.gc.ca if notification is 48 hours or greater prior to arrival;
   d) a port on Hudson Bay is the Calgary Alberta Quarantine Station at 403-221-3067 (24 hour phone line) or by email at quarantinewest@phac-aspc.gc.ca if notification is 48 hours or greater prior to arrival.
   e) a port in the province of British Columbia, a port in the Yukon Territories or a port in the Northwest Territories, is the Vancouver British Columbia Quarantine Station at 604-317-1720 (24 hour phone line) or by email at quarantinewest@phac-aspc.gc.ca if notification is 48 hours or greater prior to arrival.

When circumstances outlined in paragraph (1) require vessels bound for any St. Lawrence River or Great Lakes port to notify the quarantine officer, this should be done preferably 48 hours prior to arrival at Québec City or, if not preceding past Québec City, 48 hours prior to arrival at destination. To ensure prompt and efficient service, messages should be sent through an east coast MCTS Centre.

4. The person in charge of a vessel who wishes to change his port of destination after receiving instructions from the quarantine officer shall notify him of such change and request new instructions.

4.3.8.6 Pilotage Messages

For detailed information on Notices to Obtain Pilot, Notices of Departure, Notices of Movage, Optional Notices and Required Information, please refer to Section 23 of the latest Annual Edition of Notices to Mariners, published by the CCG, Marine Navigation Services.

4.3.8.7 Official Naval Messages

For detailed information on Naval Messages to Canadian and Commonwealth ships in Canadian areas, please refer to Section 39 of the latest Annual Edition of Notices to Mariners, published by the CCG, Marine Navigation Services.

4.3.9 *Icebreaking and Ice Routing Services*

4.3.9.1 Ice Navigation in Canadian Waters

The nautical publication *"Ice Navigation in Canadian Waters"* is published by the CCG in collaboration with Transport Canada, Canadian Ice Service, and the Canadian Hydrographic Service. *The Charts and Nautical Publications Regulations* require this publication to be carried on board if the vessel is making a voyage during which ice may be encountered. The publication is available to download, free-of-charge, from http://www.ccg-gcc.gc.ca/Ice_home/Ice_Publications/Ice-Navigation-in-Canadian-Waters

There are a variety of icebreaking and support services available to ships transiting Canadian ice-covered waters. Ice Operations Centres are in operation seasonally as ice conditions dictate. These centres work in conjunction with MCTS Centres to provide up-to-date ice information, to suggest routes for ships to follow through or around ice, and to co-ordinate icebreaker assistance to shipping.

Ice Operations Centres are in contact with icebreakers at all times and monitor progress of shipping within their area of responsibility. In addition, Environment and Climate Change Canada's Canadian Ice Service (CIS) has fully qualified Ice Service Specialists and ice reconnaissance aircraft who are involved with Ice Operations Centres on a full-time basis throughout the ice navigation season. The Coast Guard Icebreaking Superintendents have a complete and current picture of the prevailing ice conditions in their area and the anticipated trend of conditions and are therefore well equipped to provide reasoned advice on the best routes to pursue.

To obtain the maximum benefit from the service, it is essential that Masters report to the CCG before their ships enter waters where ice may be encountered. These initial reports and subsequent position reports from ships will ensure a continuing watch on the ship's progress by the CCG Ice Operations Centres and, in the event icebreaker support becomes necessary, this can be provided with a minimum of delay. There are a limited number of icebreakers available to support shipping. Masters are encouraged to follow the recommended route with which they are provided. They may also assist and support this service by providing reports on the ice they encounter.

4.3.9.2 Joint Industry-Government Guidelines

Recognizing that special risks of ice damage may exist in certain waters off the East Coast of Canada during winter and spring months and that these may affect safety and contribute to marine pollution, the *Joint Industry-Government Guidelines for the Control of Oil Tankers and Bulk Chemical Carriers in Ice Control Zones of Eastern Canada (JIG) – TP15163* were developed and have been in effect since November 1979.

These Guidelines apply to all laden oil tankers and to tankers carrying liquid chemicals in bulk when proceeding through an active Ice Control Zone in Eastern Canadian waters and fishing zones south of 60° North. The CCG may declare any ice control zone to be an active Ice Control Zone and promulgate this information via Notice to Shipping and Notices to Mariners. When proceeding through an active Ice Control Zone, all ships to which the Guidelines apply should have on board a copy of the guidelines and at least one "Ice Advisor", who meets the requirements as prescribed in JIGs.

The following may be contacted for information on ice control zones:

Ice Atlantic

Canadian Coast Guard Ice Operations Centre
P.O. Box 5667
St. John's NL A1C 5X1
Telephone: 709-772-2078 / 1-800-565-1633
Iceatl@dfo-mpo.gc.ca

For ice routing contact ECAREG at:
Telephone: 902-426-4956
hlxecareg1@innav.gc.ca

Ice Montreal

Canadian Coast Guard Ice Operations Centre
Telephone: 1-855-201-0086 / US-Canada line: 1-844-672-8037
Facsimile: 514-283-1752
Ice-Montreal.XLAU@dfo-mpo.gc.ca

MARINFO Website: http://www.marinfo.gc.ca/en/glaces/index.asp
Icebreaking Website: http://www.ccg-gcc.gc.ca/Icebreaking/home
General Information Email: ice-glace@dfo-mpo.gc.ca

The complete version of JIG TP 15163 B (2011) is available at:
http://www.tc.gc.ca/eng/marinesafety/tp-tp15163-menu-4025.htm

4.3.10 *Canadian Hydrographic Service*

4.3.10.1 Conversion of Charts to North American Datum 1983 (NAD 83)

The Canadian Hydrographic Service is converting navigational charts to the North American Datum 1983 (NAD 83).

NAD 83 is considered equivalent to the World Geodetic System 1984 (WGS 84) recently adopted as the horizontal datum for world-wide use. The advantage of the new datum is its compatibility with the NAVSTAR (GPS) satellite positioning system.

The difference in the position of the same point when quoted on the former NAD 27 and the new NAD 83 is up to 60 metres on the Atlantic coast, about 110 metres on the Pacific coast and almost zero near Chicago although there can be local discrepancies from these approximations.

Horizontal positions obtained from satellite receivers are based on NAD 83 (WGS 84) and must be converted to the horizontal chart datum (if not NAD 83) before being used.

A note has been added to nearly all existing charts indicating the datum on which the chart is based, and providing the increase or decrease required to convert the latitude and longitude from NAD 83 to the chart datum.

New Charts and New Editions being produced are now almost always based on NAD 83.

Note: Latitude and longitude positions given in this publication are in NAD 83 unless otherwise indicated.

4.3.11 *Inspection of Radio Apparatus*

The Canadian Coast Guard, on behalf of Transport Canada, is responsible for the conduct of ship radio inspections pursuant to the *Canada Shipping Act, 2001*. Queries concerning the standards governing inspections of radio apparatus fitted in ships for safety purposes may be sent to:

Program Manager, Ship Radio Inspection
Fisheries and Oceans Canada
Canadian Coast Guard
200 Kent Street, 7th Floor, Station 7S022
Ottawa ON K1A 0E6
Inquiries: Infopol@dfo-mpo.gc.ca

Owners and masters of Canadian ships, that are required to be fitted with a radio installation under the provisions of the *Canada Shipping Act, 2001* are reminded that:

The master of a ship, other than a Safety Convention ship, shall ensure that the ship station is inspected by a radio inspector:

a) within the 30 days before the ship puts to sea for the first time, if the ship is:
    i) 20 m or more in length,
    ii) a tow-boat, or
    iii) carrying more than 12 passengers on a voyage any part of which is in a VHF coverage area or more than five miles from shore;
b) at least once every 48 months, in the case of a ship referred to in paragraph (a) that is certified for home-trade voyages, Class IV, or minor waters voyages, Class II; and
c) at least once every 12 months, in the case of a ship referred to in paragraph (a) that is certified for voyages other than a home-trade voyage, Class IV, or a minor waters voyage, Class II.

The master of a ship that is required to be inspected under the *Agreement between Canada and the United States of America for Promotion of Safety on the Great Lakes by Means of Radio, 1973* need not comply with paragraphs (1)(b) or (c), but shall ensure that the ship station is inspected by a radio inspector before the ship enters the Great Lakes Basin for the first time and at least once every 13 months thereafter while continuing to navigate in the Great Lakes Basin.

A non-Canadian ship which does not have a valid Radio Safety Certificate on board may be detained by a port Customs Officer until a valid certificate has been obtained.

A fee for the conduct of ship radio inspections is levied in accordance with the *Ship Radio Inspection Fees Regulations*. The fee is payable upon completion of the inspection.

Applications for radio inspections of Canadian ships should be filed with the Canadian Coast Guard. The form entitled: Application for Radio Inspection, Compulsory Fitted Ships (FP-5286-E) should be used for this purpose. Such request by owners, agents or masters should be received by the Canadian Coast Guard at least three working days in advance of the date requested for inspection.

The owners, agents or masters of Canadian ships requiring radio inspection while outside of Canada should make application by fax or letter to:

Transport Canada
Director General
Marine Safety Directorate
Tower C, Place de Ville
330 Sparks Street
Ottawa ON K1A 0N8

Telephone: 613-998-0610
Facsimile: 613-954-1032

Non-Canadian ships (except Liberian ships) may obtain a cargo Ship Safety Radio Certificate (GMDSS) in Canada. Applications should originate with the owners, ship agents or masters of the ships concerned and be supported by confirmation from the Consul or other official representative of the country in which the ship is registered. Confirmation shall be in writing. It is the responsibility of the owner, agent or master to contact the Consul or official representative and arrange to submit the necessary confirmation to the local Canadian Coast Guard inspection office. Where time is limited, a verbal request for an inspection may be accepted from the Consul or official representative (a person who has a document from an Administration giving him the official power to act on their behalf), provided that the confirmation is submitted later.

Applications for radio inspections of Canadian ships wintering in US Great Lakes ports should be made by the owners, agents or masters on FCC form 809 and filed directly with the FCC Field Engineering office nearest to the port of which the inspections are desired. Copies of form 809 are available from any of the FCC offices serving the Great Lakes.

4.3.11.1 Ship Radio Inspection Contacts

CCG Newfoundland and Labrador

Fisheries and Oceans Canada

Telephone and Fax:	1-888-454-3177
Outside Canada Telephone Facsimile:	709-772-3467
Email:	xnfltsc@dfo-mpo.gc.ca

Charlottetown, Prince Edward Island

Senior Technologist
Fisheries and Oceans Canada
Canadian Coast Guard
P.O. Box 1236
Charlottetown PE C1A 7M8

Telephone: 902-407-7521
Facsimile: 902-407-7435
Email: xmartsc@dfo-mpo.gc.ca

Saint John, New Brunswick

Senior Technologist
Fisheries and Oceans Canada
Canadian Coast Guard
P.O. Box 700, Water Street
Saint-John NB E2L 4B3

Telephone: 506-636-4743
Facsimile: 506-636-5000

Dartmouth, Nova Scotia, B2Y 4A2

Senior Technologist
Fisheries and Oceans Canada
Canadian Coast Guard
P.O. Box 1006
Dartmouth NS B2Y 4A2

Telephone: 902-407-7521
Facsimile: 902-407-7435
Email: xmartsc@dfo-mpo.gc.ca

Sydney, Nova Scotia

Senior Technologist
Fisheries and Oceans Canada
Canadian Coast Guard Ships
1190 Westmount Road
Sydney NS B1R 2J6

Telephone: 902-407-7521
Facsimile: 902-407-7435
Email: xmartsc@dfo-mpo.gc.ca

Yarmouth, Nova Scotia

Senior Technologist
Fisheries and Oceans Canada
Canadian Coast Guard
P.O. Box 37
Yarmouth NS B5A 4B1

Telephone: 902-407-7521
Facsimile: 902-407-7435
Email: xmartsc@dfo-mpo.gc.ca

CCG Central and Arctic Region (Québec and Ontario)

Fisheries and Oceans Canada

Telephone: 514-283-5684
Facsimile: 514-283-2129

Hay River, Northwest Territories

Supervisor of Technical Maintenance
Fisheries and Oceans Canada
Canadian Coast Guard Ships Electronics Workshop
42037 MacKenzie Highway
Hay River NT X0E 0R9

Telephone: 867-874-5530
Facsimile: 867-874-5532

Richmond, British Columbia

Supervisor of Technical Maintenance
Fisheries and Oceans Canada
Canadian Coast Guard Ships Electronic Workshop
4270 Inglis Drive
Richmond BC V7B 1L7

Telephone: 604-666-2311
Facsimile: 604-666-1786

Victoria, British Columbia

Supervisor of Technical Maintenance
Fisheries and Oceans Canada
Canadian Coast Guard Ships Electronic Workshop
25 Huron Street
Victoria BC V8V 4V9

Telephone: 250-480-2644
Facsimile: 250-480-2666

Lazo, British Columbia

Supervisor of Technical Maintenance
Fisheries and Oceans Canada
Canadian Coast Guard Ships Electronic Workshop
299 Wireless Road
P.O. Box 220
Lazo BC V0R 2K0

Telephone: 250-339-5211
Facsimile: 250-339-7922

Prince Rupert, British Columbia

Supervisor of Technical Maintenance
Fisheries and Oceans Canada
Canadian Coast Guard Ships Electronic Workshop
P.O. Box 906
Prince Rupert BC V8J 4B7

Telephone: 250-627-3073
Facsimile: 250-624-6518

4.3.12 *Radio Station Licensing and MMSI Numbers*

To obtain further information on radio station licensing and Maritime Mobile Service Identity (MMSI) numbers contact Innovation, Science and Economic Development Canada at: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01742.html or locate the nearest Innovation, Science and Economic Development Canada office through the local telephone directory.

4.3.13 *Marine Telephone Service*

4.3.13.1 General

This service enables a person aboard a ship to speak directly to any person ashore, or vice versa. The service is an extension of the public telephone system to ships at sea through MCTS Centres. Long distance ship-to-shore calls may only be made as collect calls or charged to a telephone company calling card/pre-paid card. Refer to Part 2 to find MCTS Centres that provide the marine telephone call service.

4.3.13.2 Placing a Marine Telephone Call

Ship to Shore

a) Listen to make sure that the MCTS Centre is not busy with another ship.

b) Call the MCTS Centre and when communication has been established give the following:

    i) name of the city being called;
    ii) name and/or telephone number of the person being called;
    iii) name of the caller or the number of the caller's telephone company credit calling card (if applicable).

c) When the call is completed, sign off, using the name and call sign of the ship.

Shore to Ship

d) Dial the appropriate MCTS Centre.

e) Give the MCTS Officer the name of the person and ship being called.

Receiving a Marine Telephone Call

f) When you hear your ship being called, reply, giving your ship's name and call sign.

g) At the end of the conversation, sign off by announcing the name and call sign of your vessel.

4.3.13.3 Radiomedical Calls

Mariners may obtain medical advice by calling a MCTS Centre and requesting to be connected to a medical professional. The CCG will connect the vessel to an appropriate medical professional via the Marine Telephone System.

For mariners who wish to make their own arrangements for medical advice, radiomedical services are available in numerous languages to vessels flying any flag at any location through the International Radio-medical Centre (CIRM) in Rome, Italy. This centre is staffed 24/7/365 by specially trained physicians and radio operators who also have access to specialists in all medical branches. The CIRM can be contacted via the following means:

Telephone: 39 6 54223045
Mobile GSM: 39 348 3984229
Facsimile: 39 6 5923333
Telex: 043 612068 CIRM I
Email: telesoccorso@cirm.it
Web: http://www.cirm.it/

PART 5 ENVIRONMENT AND CLIMATE CHANGE CANADA'S MARINE AND ICE WARNING AND FORECAST PROGRAMS

5.1 BACKGROUND

Environment and Climate Change Canada's Meteorological Service of Canada (MSC) is the agency responsible for delivering Canada's weather service. The MSC offers a broad range of products and services that are designed to help mariners make informed decisions on how weather will affect them. The Canadian Coast Guard also plays an important role in disseminating forecasts and warnings, and in collecting and relaying weather information from volunteer observers and ships.

The constant stream of data coming from both automated and manned coastal observation stations, as well as ships and weather buoys, is supplemented by satellite imagery, weather radar and a full set of numerical weather products adapted for marine operations.

5.2 MARINE WEATHER ALERTING PROGRAM

The MSC is responsible for issuing marine weather alerts for coastal and offshore waters, as well as the St. Lawrence Seaway, and major inland waters such as the Great Lakes. These alerts include warnings of extreme weather events that can pose a threat to life and property at sea, such as gales or storms and freezing spray. Localized warnings and watches are also issued for phenomena such as squalls, high water levels and water spouts. Advisories are issued as a caution to mariners for weather-related events that may not meet warning criteria but may nonetheless pose significant inconvenience or hazard to navigation.

Major inland waters are defined as having significant marine activity and where time to reach safe harbour is comparable to the marine weather alert lead time. The criteria for issuing marine weather alerts is based on national guidelines, but determined regionally to account for regional climatology and the nature of the regional marine community.

The following tables describe the various types of marine warnings, watches and advisories comprising the Marine Weather Alerting Program:

Table 5-1 - Synoptic Warnings

Synoptic Warnings *	Warning Criteria
Strong wind warning[1]	Winds[2] 20 to 33 knots inclusive occurring or expected to occur in any portion of a marine area including any portion defined by a local effect or an "except" statement.
Gale warning	Winds[2] 34 to 47 knots inclusive occurring or expected to occur in any portion of a marine area including any portion defined by a local effect or an "except" statement.
Storm warning	Winds[2] 48 to 63 knots inclusive occurring or expected to occur in any portion of a marine area including any portion defined by a local effect or an "except" statement.
Hurricane force wind warning	Winds[2] 64 knots or above occurring or expected to occur in any portion of a marine area including any portion defined by a local effect or an "except" statement.
Freezing spray warning	Ice accretion rate of 0.7 cm/hr or more occurring or expected to occur in any portion of a marine area including any portion defined by a local effect or an "except" statement.

Notes:

**These warnings cover widespread marine weather conditions and are included in the body of the text forecast.*

[1] The strong wind warning program is active on a regional basis as required for coastal and inland waters during the recreational boating season. A warning is not required when the wind is described using the range 15-20 knots. This range is normally used for greater accuracy.

[2] Gusts are excluded from the definition.

Range: *With the exception of Note[1] above, when a range is used to describe the wind speed, the upper value of the range determines the warning category.*

Table 5-2 - Localized Warnings / Watches and Marine Weather Advisory

Localized Warnings / Watches and Advisory*	Warning Criteria
Squall watch	Advance notice of conditions that are favourable to the development of squalls.
Squall warning	Wind gust ≥ 34 knots associated with a line or an organized area of thunderstorms.
Tornado watch	Advance notice of conditions that are favourable to the development of tornados.
Tornado warning	Evidence of tornado formation (radar, report from a reliable source, etc.) over a marine area, or an existing tornado moving from land to an adjacent marine area.
Waterspout watch[1]	Advance notice of conditions that are favourable to the development of cold-air waterspouts.
High water level warning[2]	Issued to warn mariners and coastal populations of potentially hazardous impacts due to abnormally high water levels or waves along coastal areas.
Special marine warning/watch	Used to describe conditions other than those defined above that may have potentially hazardous impacts on navigation.
Marine weather advisory[3]	Issued as necessary to caution mariners about conditions that may not meet warning criteria but may nonetheless pose significant inconvenience or hazard to navigation.

*Notes: *Localized warnings/watches and advisories are issued in separate messages.*

[1] Waterspout warnings are not issued.

[2] High water level warnings are not currently issued for Pacific and Arctic waters.

[3] Advisories may be issued for both localized or widespread marine weather conditions.

Ice warnings: Refer to the Canadian Ice Services, Section 5.15.

5.3 MARINE AND ICE FORECAST PROGRAM

Marine forecasts are issued for the offshore economic zone including the St. Lawrence Seaway and major inland waters.

For sea ice, ice forecasts are issued for offshore marine areas as well as the Great Lakes. The production schedule is detailed in each regional section of this chapter. The forecast program includes the following bulletins:

Table 5-3 - Marine Forecast Program

Forecast or Bulletin Name	Details
Technical marine synopsis	Provides the positions and trends of the main weather systems for the forecast period covering Days 1 and 2.
Marine forecast (or Regular marine forecast)	Provides information on: synoptic warnings, wind, visibility, precipitation and freezing spray. It may include air temperature as appropriate. Valid for Days 1 and 2.
Recreational boating marine forecast	Tailored to the needs of recreational boaters, it is available on a seasonal basis and only in specific regions.

Forecast or Bulletin Name	Details
Marine weather statement	Issued when deemed necessary, it provides additional information on marine conditions.
Wave height forecast	Provides information on significant wave heights for Days 1 and 2 (not available for northern and Arctic lakes or inland waterways).
Extended marine forecast	Meant for longer-range planning purposes, it provides an extended marine wind outlook for Days 3, 4, and 5.
Iceberg bulletin	Provides information on distribution of icebergs valid for the time of issue of the bulletin.
Ice forecasts	Provides information on hazardous ice conditions for Days 1 and 2.
NAVTEX[1]	International Maritime Organization (IMO)-compliant *NAV*igational *TelEX* bulletin issued with each regular marine forecast or ice forecasts in a standardized abbreviated format - see 5.8.1 for Abbreviations.
MAFOR[1]	This is a specialized coded marine forecast produced for Québec and Ontario regions.

Note[1]: More details on NAVTEX and MAFOR are provided at Section 5.7 and 5.8.

5.3.1 *Monitoring the Forecast*

Forecasts are monitored, and amended as necessary, to reflect unexpected or changing weather conditions according to criteria based on the following principles:

a) when safety or security is at risk;
b) when inconvenience to the marine community will be extensive; or
c) when the product could adversely affect the credibility of the marine forecast program.

5.3.2 *Marine and Ice Forecast Areas*

Marine forecasts and ice forecasts are issued for marine and ice areas as outlined in the regional maps. The sizes and boundaries of these areas are determined regionally based on the following considerations:

a) marine traffic density;
b) the ability to forecast to the proposed resolution;
c) the degree to which, climatologically, marine weather varies; and
d) the ability to distribute the information effectively to the marine community.

5.3.3 *Current Conditions*

Current weather data is available to Canadians for their local area. The frequency and quality of the data will be consistent with the standards established by the World Meteorological Organization (WMO). The data may include, as appropriate:

a) wind speed and direction;
b) atmospheric pressure;
c) sky conditions;
d) precipitation type;
e) restrictions to visibility;
f) wave height; and

g) current temperature.

General information on current sea-ice will be provided to the marine community once a week to provide an adequate planning tool for those considering entering ice-encumbered waters.

5.3.4 *Emergency Response*

Meteorological support is provided during emergencies and includes the provision of meteorological information and forecasts. In the case of a pollution event, Environment and Climate Change Canada adheres to the "polluter pay" policy for the provision of all services. Where agreements are in place, Environment and Climate Change Canada will make its distribution systems available to transmit vital information during emergency situations.

5.3.5 *Delivery of Marine Warning and Forecast Services*

Delivery of marine warning and forecast services to mariners navigating waters within Environment and Climate Change Canada's forecast areas of responsibility is primarily by mass communication in order to reach the greatest number of mariners through the standard communications technologies available to mariners. The following principles apply, regardless of the specific available technologies:

a) Marine forecasts and warnings comprising the meteorological Maritime Safety Information (met MSI) issued by Environment and Climate Change Canada will be made available to the marine community via the CCG MCTS according to established procedures within the framework of the Global Maritime Distress and Safety System (see RAMN Part 4 Section 4.2.1 General Procedures – Systems – GMDSS).

b) Internet access via the World-Wide Web. All forecast and warning information will be found at the following address: http://www.weather.gc.ca/canada_e.html. Mariners should note, however, that the internet is *not* part of the Maritime Safety Information system and should never be relied upon as the only means to obtain the latest marine forecasts and warning information. Access to the internet may be interrupted or updated information delayed without prior notice.

c) Marine and Environmental Advisories, Watches and Warnings are distributed through various mechanisms including partnerships with national and regional media distributors and local emergency measures organizations.

d) In addition to the aforementioned mediums, basic services to mariners and Canadians in general shall also be delivered by mass distribution in partnership with media, relying on current and developing technologies in radio, television, newspaper and the Internet. These distribution mechanisms represent the primary methods by which most Canadians receive their weather information, now and in the future.

5.4 VOLUNTARY OBSERVING SHIP (VOS) PROGRAM

The VOS program has been discontinued within Canada. Environment and Climate Change Canada currently supports the Automated Voluntary Observing Ship program (AVOS) program and will support visiting VOS ships from other jurisdictions on a "best efforts" basis. Contact your regional PMO for further information.

5.5 BUOYS PROGRAM

In order to complement the observational network, Environment and Climate Change Canada operates a network of buoys across the country. This data becomes part of the collection of weather reports sent to the distribution network and is used to improve marine forecasting. The location, WMO identifiers and names of the Environment and Climate Change Canada buoys are given in the regional annexes.

Mariners are requested to use caution when approaching buoys as mooring chains are normally not detectable from a ship and can be damaged or even severed if there is contact. Such a mishap could possibly result in the buoy going adrift thus requiring a costly effort to recover the platform. Please keep the regional PMO informed of any incidents involving buoys.

Buoy locations: Buoy positions are described in each specific regional annex.

5.6 PORT METEOROLOGICAL OFFICERS (PMOS)

In addition to a variety of other duties, PMOs also act as a liaison between Environment and Climate Change Canada and ships involved in the VOS and AVOS programs. This is to encourage vessels to report weather and ice conditions, to instruct observers about procedures and the use of code; to supply observing forms, handbooks (free of charge); to calibrate equipment; and, in some cases, to install, on loan, meteorological or oceanographic instrumentation. The PMO is also responsible for recruiting new vessels to participate in the AVOS program.

If a PMO visits your ship, feel free to ask questions about observing and coding, and reporting weather and ice conditions. Inform the PMO of any concerns you may have with forecasts, warnings, or facsimile products, especially if you have specific problems. The PMO will contact the appropriate party for investigation. Keep the PMO informed of your contact information.

5.6.1 *Port Meteorological Officers (PMOs)*

Great Lakes

Shawn Rickard, PMO
Environment and Climate Change Canada, MSC
867 Lakeshore Road
Burlington ON L7S 1A1
Telephone: 905-336-4672
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St-Lawrence - Québec

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Facsimile: 514-496-1867
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Pacific

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Cellular: 604-785-4555 or 604-340-2153
Facsimile: 604-664-4094
Email: dragan.radovic@canada.ca

Great Slave Lake / Lake Athabasca / Western Arctic

Ben Lemon, PMO
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Manitoba Lakes

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5.7 NAVTEX

MSC will provide Canadian Coast Guard with marine forecast information in NAVTEX format for coastal and offshore areas of responsibility based on IMO standards. Marine forecast information provided will include:

a) warnings (winds and ice accretion);
b) synopsis (major features); and
c) forecasts (wind, visibility, ice accretion, wave height).

Each bulletin will contain a WMO telecommunication header, a valid period, notes on parameters used within the bulletin, a synopsis section, a weather forecast section and a wave forecast section. Below is a sample of a partial NAVTEX produced for CCG MCTS Sydney. Note that NAVTEX will make use of abbreviations: this is necessary in order to comply with the physical limitations of the NAVTEX system. In the example, text in superscript indicates how abbreviations are used. Section 5.7.1 provides a detailed list used by NAVTEX.

		NAVTEX service sample (518 kHz)
Header		FQCN34 CWHX 171400
Title (part one)	►	NAVTEX/1 FOR SYDNEY VCO AT 10:00 AM AST FRI $^{\text{Friday}}$ 17 NOV $^{\text{November}}$ 2006.
Weather forecast		
Parameters	►	VLD $^{\text{valid period}}$ 17/14Z-19/03Z, WND(KT) $^{\text{wind in knots}}$, VIS(NM) $^{\text{visibility in nautical miles}}$ ABV $^{\text{above}}$ 1 NM UNL IND $^{\text{unless indicated}}$, FOG IMPLIES VIS 1 NM OR LESS.
Synopsis	►	**SYNOPSIS:** 17/14Z STRM $^{\text{storm}}$ 980 MB OVR SRN NFLD $^{\text{over southern Newfoundland}}$ 18/14Z STRM $^{\text{storm}}$ 985 MB OVR NRN NFLD. $^{\text{over northern Newfoundland}}$ 17/14Z RIDG OVR WRN QUE. $^{\text{ridge over western Québec}}$ 18/14Z RIDG OVR WRN GU ST LAW. $^{\text{ridge over western Gulf of St Lawrence}}$
Area name	►	EASTERN SHORE, FOURCHU:
Warning	►	WNG $^{\text{warning}}$: NIL.
Wind forecast	►	WND: SW$^{\text{southwest}}$10-15. 17/18Z SE$^{\text{southeast}}$15-20. 18/06Z V15. 18/12Z SW$^{\text{southwest}}$15-20. 18/18Z SW20-25. 19/00Z SW15-20.
Visibility forecast	►	VIS: 17/13Z-19/03Z PTH-FG $^{\text{fog banks}}$
		{... other marine areas }
End of weather	►	END/
Wave height forecast		
Parameters		WAVES(M) $^{\text{metres}}$ VLD 17/09Z-18/10Z.
Area name	►	EASTERN SHORE, SABLE, EAST SCOTIAN SLOPE–N $^{\text{– northern half}}$, FOURCHU, BANQUEREAU:
Height in meters	►	1-2.
		{.... Other marine areas}
End of waves and part one	►	END/

	NAVTEX service sample (518 kHz)
Header ▶	FQCN**34 CYQX** 171330
Title (VCO part two) ▶	**NAVTEX/2** FOR SYDNEY VCO.
Weather forecast	
Parameters	VLD 17/13Z-19/03Z.
Marine areas	GULF-PORT AU PORT, SOUTHWEST COAST:
Warning	WNG: NIL.
Wind	WND: S10-15G20. 17/23Z S10-15. 18/11Z S15-20. 18/18Z SW20.
Visibility	VIS: 17/12Z-19/02Z FG-PTH.
	{... other marine areas}
End of weather ▶	END/
Wave height forecast	
Parameters	WAVES(M) VLD 17/09Z-18/09Z.
Marine areas	GULF PORT AU PORT:
Waves	1-2. 18/06Z 0-1.
	{... other marine areas}
End of waves and part two	END/

Mariners navigating northern and Arctic waters are advised that marine forecast bulletins issued for MSC's METAREAs marine forecast service uses similar abbreviated text formatting as is used in the NAVTEX marine weather bulletins issued by the MSC. Further information regarding the METAREAs forecast program is provided in RAMN Part 5, Section 1.1 Northern Canada.

5.7.1 *Abbreviations Used by MSC within NAVTEX and METAREAs Bulletins*

Table 5-4 - Date/Time Standards

April	APR	June	JUN	September	SEP
August	AUG	March	MAR	Sunday	SUN
December	DEC	May	MAY	Thursday	THU
February	FEB	Monday	MON	Today	TDY
Friday	FRI	November	NOV	Tonight	TNGHT
January	JAN	October	OCT	Tuesday	TUE
July	JUL	Saturday	SAT	Wednesday	WED

Table 5-5 - Marine Forecast Area Dividing Standards

eastern half	E	northwestern half	NW	southwestern half	SW
northeastern half	NE	southeastern half	SE	western half	W
northern half	N	southern half	S		

Table 5-6 - Forecast Parameters

implies	IMPL	meters	M	unless	UNL
indicated	IND	milibar	MB	valid	VLD
knots	KT	nautical mile	NM		

Table 5-7 - Wind Elements

east	E	northwest	NW	variable	VRB
light	LGT	south	S	warning	WNG
north	N	southeast	SE	west	W
northeast	NE	southwest	SW	with gust to	G

Table 5-8 - Freezing Spray Qualifier

at times	OCNL	outside the ice edge	OUT-EDGE	severe	SEV
freezing spray	FRZ-SPR	over open water	OVR-OW		
moderate	MOD	risk	RSK		

Table 5-9 - Wave Elements

Ice covered	ICE

Table 5-10 - Weather Elements

blizzard	BZ	hail	HL	mist patches	PTH-MIST
blowing snow	BS	heavy rain	HVY-RA	rain	RA
drizzle	DZ	heavy snow	HVY-SN	rain and snow mixed	MIX-RASN
flurries	LGT- SN	heavy thunderstorm	HVY-TS	scattered	SCT
fog	FG	ice fog	IFG	showers	SHWRS
fog banks	PTH-FG	ice pellets	IP	snow	SN
freezing drizzle	FRZ-DZ	light snow	LGT-SN	thunderstorm	TSTM
freezing rain	FRZ-RA	mist	MST	waterspout	WTSPT

Table 5-11 - Weather/Visibility Elements (qualifier)

at times	OCNL	as low as 1 mile	NR 1	one mile or less	0-1
heavy	HVY	in precipitation	IN-PRECIP	above one mile	ABV 1
occasional	OCNL	near zero	NR 0	visibility	VIS
very poor*	VERY POOR	poor*	POOR	moderate*	MOD
good*	GOOD				

Table 5-12 - Trend Descriptors (synopsis)

building	BLDN	intensifying	INTSF	splitting	SPLIT
dissipating	DISS	merging	MERG	weakening	WKN
deepening	DPN	quasi-stationary	QSTNR		

Table 5-13 - Systems Descriptors (synopsis)

cold front	C-FRONT	high	HIGH	storm	STRM
col	COL	hurricane	HURR	tropical depression	TROP-DEP
disturbance	DISTURB	low	LOW	tropical storm	TS
flat low	FLAT LOW	post tropical storm	POST-TROP-STRM	trough	TROUGH
frontal system	FRONT	ridge	RIDGE	warm front	W-FRONT

Table 5-14 - Position Descriptors (synopsis)

cape	CAP	lake	LK	pacific	PAC
coastal	CSTL	longitude	LONG	peninsula	PEN
from	FM	near	NR	river	RIV
island	IS	located on a line	ON LINE	strait	STR
latitude	LAT	over	OVR		

Table 5-15 - Cardinal Point Descriptors (synopsis)

central	CENTRAL	northeast-southwest	NE-SW	southeast	SE
east	E	northern	NRN	southeastern	SERN
eastern	ERN	north - south	N-S	southern	SRN
east - west	E-W	northwest	NW	southwest	SW
from	FM	northwestern	NWRN	southwestern	SWRN
north	N	northwest-southeast	NW-SE	west	W
northeast	NE	south	S	western	WRN
northeastern	NERN				

Table 5-16 - Territorial References (synopsis)

Alberta	ALTA	New Brunswick	NB	Ontario	ONT
British Columbia	BC	Newfoundland	NFLD	Prince Edward Island	PEI
Great Lakes	GRT LKS	Newfoundland and Labrador	NL	Québec	QUE
Gulf of St Lawrence	GU ST LAW	Nova Scotia	NS	Saskatchewan	SASK
Labrador	LAB	Northwest Territories	NWT	Yukon Territory	YT
Manitoba	MAN				

5.7.2 *Ice Elements*

Table 5-17 - Ice Concentration

1 tenth	1	6 tenths	6	bergy water	BW
10 tenths	10	7 tenths	7	consolidated	CONS
2 tenths	2	8 tenths	8	ice free	IF
3 tenths	3	9 plus tenths	9+	open water	OW
4 tenths	4	9 tenths	9	trace of	TR-
5 tenths	5	9 to 10 tenths (lake ice)	9-10		

Table 5-18 - Ice Type

fast ice	FI	multi-year ice	MYI	second year ice	SYI
first year ice	FYI	new lake ice	NI	thick lake ice	TKI
grey ice	GI	new ice	NI	thin lake ice	THI
grey-white ice	GWI	old ice	OI	very thick lake ice	VTKI
medium lake ice	MEDI				

Table 5-19 - Ice Qualifier

light	LGT	pressure	PRESS	strong	STRG
moderate	MOD	rotten	ROTN		

Table 5-20 - Ice General

along the coast	ALNG CST	estimated	EST	including	INCL
conditions	CDNS	except	EXC		
edge	EDGE	ice	ICE		

Table 5-21 - Ice Direction

eastward	EWD	northwestward	NWWD	southwestward	SWWD
northeastward	NEWD	southeastward	SEWD	westward	WWD
northward	NWD	southward	SWD		

*The visibility ranges associated with descriptive visibility terms as used in METAREAs visibility forecasts are given in the following table:

Table 5-22 - Visibility Category and Range

Visibility Category (NAVTEX Term)	Visibility Range (Nautical Miles)
Very poor (VERY POOR)	Less than 0.5 ($vis < 0.5$).
Poor (POOR)	0.5 or greater and less than 2 ($0.5 \leq vis < 2$).
Moderate (MOD)	2 or greater and 5 or less ($2 \leq vis \leq 5$).
Good (GOOD)	Greater than 5 ($5 < vis$).

5.8 MAFOR DECODE TABLE

MAFOR

$YYG_1G_1/$ $0AAAa_m$ $1GDF_mW_m$

YYG_1G_1/YY: Day of the month

G_1G_1: Time of commencement of forecast (UTC). Midnight is encoded as 00

$0AAAa_m$: The maritime area to which the whole forecast or set of forecasts refers. If the geographical name for the forecast region is used instead of the indicator $AAAa_m$, it shall be inserted at the place of this group.

a_m	Portion of the maritime area		
Code 0	Whole of the area AAA	Code 5	Southwest quadrant of the area AAA
Code 1	Northeast quadrant of the area AAA	Code 6	Western half of the area AAA
Code 2	Eastern half of the area AAA	Code 7	Northwest quadrant of the area AAA
Code 3	Southeast quadrant of the area AAA	Code 8	Northern half of the area AAA
Code 4	Southern half of the area AAA	Code 9	Rest of the area AAA

$1GDF_mW_m$

G: Forecast period
D: Direction from which the wind is blowing
F_m: Wind Speed
W_m: Forecast weather

G	Forecast Period	D	Wind	Fm	Wind	Wm	Forecast Weather
Code	**Descriptive**	**Code**	**Direction**	**Code**	**Knots**	**Code**	
0	Beginning of period	0	Calm	0	0 -3	0	Visibility greater than 3 nm.
1	Valid for 3 hrs	1	Northeast	1	4	1	Risk of accumulation of ice on superstructures.
2	Valid for 6 hrs	2	East	2	5	2	Strong risk of accumulation of ice on superstructure.
3	Valid for 9 hrs	3	Southeast	3	6	3	Visibility ≥1 nm and ≤3 nm
4	Valid for 12 hrs	4	South	4	7	4	Visibility < 1 nm, including fog
5	Valid for 18 hrs	5	Southwest	5	8	5	Drizzle
6	Valid for 24 hrs	6	West	6	9	6	Rain
7	Valid for 48 hrs	7	Northwest	7	10	7	Snow, or rain and snow
8	Valid for 72 hrs	8	North	8	11	8	Squally weather with or without showers.
9	Occasionally	9	Variable	9	12	9	Thunderstorms

Environment and Climate Change Canada
Environnement et Changement climatique Canada

SUGGESTIONS / COMMENTS / COMMENTAIRES

Help us to serve you: Make us aware of your comments regarding the Environment and Climate Change Canada Marine and Ice Services.	Aidez-nous à mieux vous servir: Faites-nous parvenir vos commentaires concernant le programme de prévisions maritimes d'Environnement et Changement climatique Canada.

Officer/Officier:		Return to / Envoyer à: Tom King Marine & Transport Weather Services / Services météorologiques marine et transport National Service Operations / Services opérationnels nationaux Meteorological Service of Canada / Service météorologique du Canada Environment and Climate Change Canada / Environnement et Changement climatique Canada P.O / Case Postale. Box 370 Gander, NL A1V 1W7 Fax/Télécopieur: 709-256-6627 Email / Courriel: Tom.King@canada.ca
Ship/Navire:		
Position Latitude:		
Position Longitude:		
Date:		

Subject / Détails:

5.9 NORTHERN CANADA

Includes: Western and Eastern Arctic, Hudson Bay and Major Inland Lakes of Manitoba, Northern Saskatchewan and Northwest Territories.

5.9.1 *Marine Weather Forecast Program*

The Prairie and Arctic Storm Prediction Centre (PASPC), which is jointly located in Edmonton and Winnipeg provides marine weather forecasts in support of Arctic marine activity during the open water season from summer into parts of the fall. Wave height forecasts are provided for salt water areas. The PASPC-Edmonton forecast area encompasses Lake Athabasca, Great Slave Lake, the Mackenzie River, as well as the waterways of the Western and High Arctic, and Baffin Bay.

The PASPC-Winnipeg provides marine forecasts for Hudson Bay, Hudson Strait, Foxe Basin, Ungava Bay, and Davis Strait. Marine forecasts are also provided for Lake Winnipeg (north and south basins), Lake Manitoba and Lake Winnipegosis during the open water season in support of pleasure and commercial activities.

The forecast program for the Manitoba Lakes continues through the winter months as a public rather than a marine forecast in aid of commercial ice fishing. Minimum and maximum temperatures along with wind chill are included in the forecast.

Table 5-23 - Production Schedule - Text Format

Forecast Name	Issue Time	Time Zone	Marine Region
Technical marine synopsis	06:30, 18:30	MDT / MST	Western Arctic
	06:30, 18:30	MDT / MST	Central Arctic
	04:45, 16:45	EDT / EST	Hudson Bay and Eastern Arctic
Marine forecast	08:00, 16:30, 21:30	CDT / CST	Manitoba
	05:00, 17:00	MDT / MST	Inland waters (Lake Athabasca, Great Slave Lake, the Mackenzie River)
	07:00, 19:00	MDT / MST	Western Arctic Waterway
	05:30, 17:30	EDT / EST	Arctic
	05:00, 17:00	CDT / CST	Hudson Bay
	05:30, 17:30	EDT / EST	Southern Nunavut
	05:00, 17:00	EDT / EST	Eastern Nunavut
Extended forecast	05:00, 17:00	MDT / MST	Inland waters
	07:00, 19:00	MDT / MST	Western Arctic Waterway
	05:30, 17:30	EDT / EST	Arctic
	05:00, 17:00	CDT / CST	Hudson Bay
	05:30, 17:30	EDT / EST	Southern Nunavut
	05:00, 17:00	EDT / EST	Eastern Nunavut

Forecast Name	Issue Time	Time Zone	Marine Region
Wave height forecast	07:00, 19:00	MDT / MST	Western Arctic Waterway
	05:30, 17:30	EDT / EST	Arctic
	05:00, 17:00	CDT / CST	Hudson Bay
	05:30, 17:30	EDT / EST	Southern Nunavut
	05:00, 17:00	EDT / EST	Eastern Nunavut
Marine weather statement	As needed	MDT / MST EDT / EST	Where needed

Table 5-24 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule)

MCTS Centre	NAVTEX Transmitter	Header	Issue Time
Iqaluit / VFF	Iqaluit	FQCN36 CWNT	05:30, 17:30 EDT / EST

Marine Weather Warnings (refer to Table 5-1 - Synoptic Warnings)

Note the following particulars:

	Warning Types	Comments
1	Strong wind warning	Applies to Manitoba Lakes, Lake Athabasca, Great Slave Lake and Mackenzie River

5.9.2 *Weather and Ice Messages*

Ship weather and ice reports in the international meteorological code, taken at the standard synoptic hours of 00:00, 06:00, 12:00 and 18:00 UTC are solicited from ships of all nationalities which have been recruited by their national weather service, or other weather services. These reports should be transmitted directly to the circuit using Inmarsat. Alternatively, the observation should be passed to the nearest CCG MCTS Centre, irrespective of the ship's position. Reports made close to, or even within sight of land, are as important as reports made offshore, due to the greater variability of weather conditions in proximity to a coastline. Such reports contribute to the overall knowledge of Arctic weather from both a real-time operational perspective and from a climate perspective.

The PASPC welcomes weather, sea, and ice observations from the lakes. Real-time observations, and those up to a few hours after the event, are most valuable. Relay observations to 1 800 66STORM (1-800-667-8676).

Table 5-25 - Buoys Deployed During the Open Water Season

WMO#	Location/Information	LAT (deg)	LONG (deg)
45140	Lake Winnipeg South Basin (moored buoy)	50.48 N	096.44 W
45141	Great Slave (moored buoy 25 nm northeast of Hay River)	61.1 N	115.19 W
45144	Lake Winnipeg North Basin (moored buoy)	53.15 N	098.15 W
45145	Lake Winnipeg between North and South Basins	51.24 N	096.420 W
45150	Great Slave (moored buoy - immediate west of Inner Whaleback Rocks)	61.55 N	113.45 W

The Great Slave Lake buoys are deployed in early July and retrieved in late September or early October. They provide hourly wind, air temperature, surface water temperature, and wave data.

The Lake Winnipeg South Basin buoys are deployed annually in May or June, and retrieved in October. They provide hourly wind, air temperature, surface water temperature, and wave data.

The Tuktoyaktuk buoy is deployed in early August and retrieved in late September. It provides hourly wind, air temperature, surface water temperature, and wave data.

5.9.3 *Weatheradio Canada*

Weatheradio is a public service designed to make weather information available over VHF or FM radio continuously. Weatheradio is dedicated to transmitting up to the minute weather reports and forecasts directly to all users including the marine community.

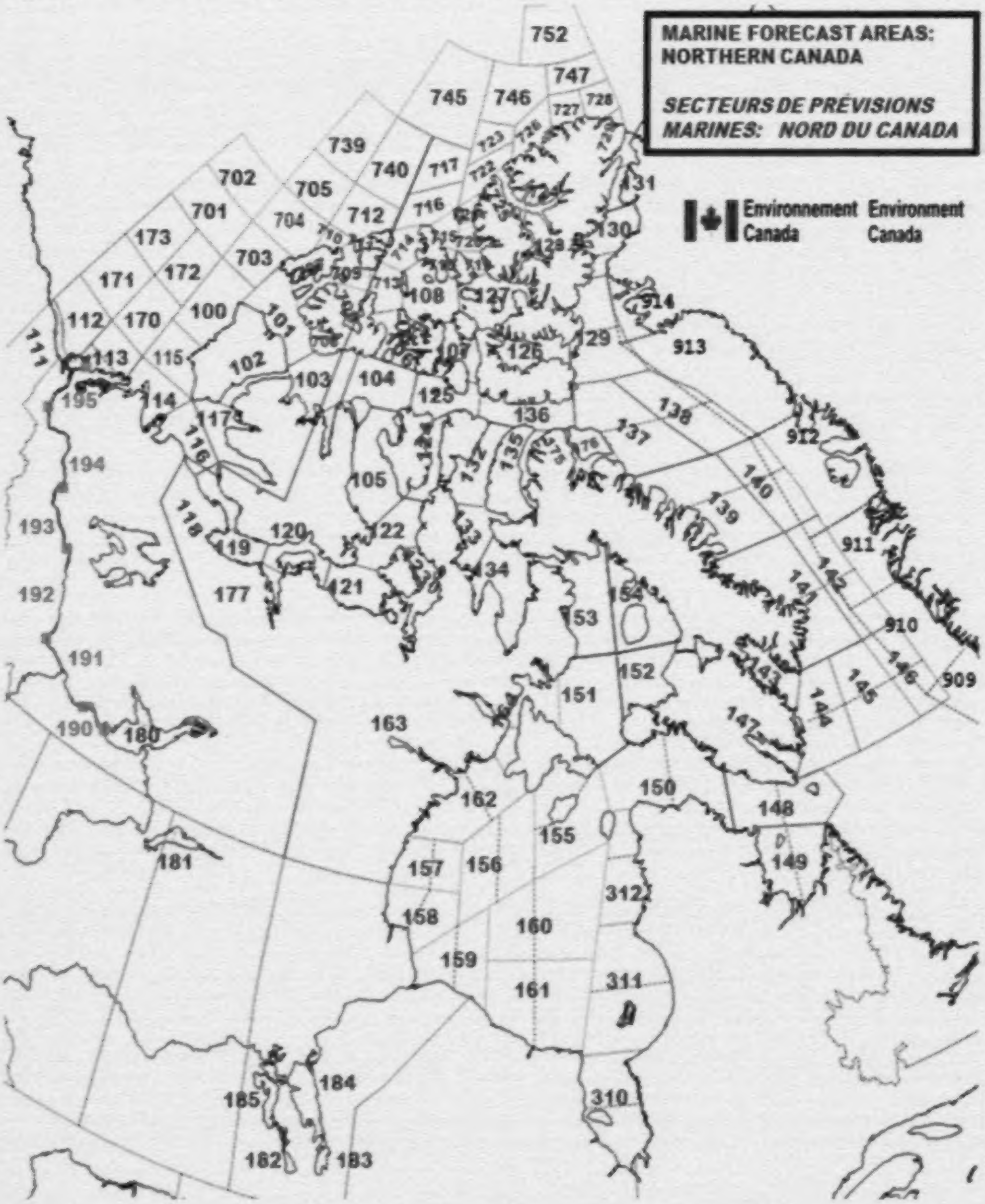
Environment and Climate Change Canada Weatheradio operates several stations serving Northern region. These are:

Station	Call Sign	Frequency (MHz)	Effective Radiated Power (Watts)	Location
Arviat	CKO583	162.400	27	Arviat
Behchoko	CHR950	162.475	302	Behchoko
Cap Dorset (Kingait)	XJS717	162.550	25	Cap Dorset (Kingait)
Dauphin	VBA814	162.550	123	Moon Lake
Fort McPherson	CHR956	162.450	245	Fort McPherson
Fort Providence	CHR951	162.425	303	Fort Providence
Fort Simpson	CHR952	162.400	76	Fort Simpson
Fort Smith	CFM468	162.425	309	Fort Smith
Hay River	CIE211	162.550	245	Hay River
Inner Whaleback Rocks	XKI403	161.650	8	Inner Whaleback Rocks
Inuvik	VBU996	162.400	54	Hidden Lake
Iqaluit	VEV284	162.550	30	Iqaluit
Iqaluit (FM)	CIQA	93.3	42	Iqaluit Airport
Long Point*	VCI386	162.550	72	Long Point
Nahanni Butte	CHR957	162.525	224	Nahanni Butte
Norman Wells	CHR953	162.400	269	Norman Wells

Station	Call Sign	Frequency (MHz)	Effective Radiated Power (Watts)	Location
Pine Point	XJS786	162.475	389	Pine Point
Rankin Inlet (Kangiqliniq)	XJS716	162.400	40	Rankin Inlet (Kangiqliniq)
Riverton*	XLF471	162.400	195	Riverton
Tuktoyaktuk	CHR955	162.475	269	Tuktoyaktuk
Winnipeg*	XLM538	162.550	126	Trizic Building
Yellowknife	VBC200	162.400	148	Yellowknife Seismic Station

** Note: Winnipeg, Riverton and Long Point provide continuous broadcast of marine weather forecasts and warnings for the Manitoba Lakes, and of marine weather observations when available. Further information regarding Weatheradio network can be obtained via the Internet at http://www.ec.gc.ca/meteo-weather/default.asp?lang=En&n=792F2D20-1.*

Figure 5-1 - Marine Forecast Areas: Northern Canada


MARINE FORECAST AREAS:
NORTHERN CANADA
SECTEURS DE PRÉVISIONS
MARINES: NORD DU CANADA
Environnement Canada
Environment Canada
752
747
745
746
727
728
739
740
717
702
705
701
704
712
716
173
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171
709
713
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5.9.4 *Marine Forecast Areas*

Table 5-26 - Eastern and Western Arctic Waters, and Hudson Bay

Number	Area Name	Forecast Availability Period*	Number	Area Name	Forecast Availability Period*
100	Prince Alfred	Shipping season	155	Coats	Shipping season
101	McClure	Shipping season	156	Central	Shipping season
102	Prince of Wales	Shipping season	157	Arviat	Shipping season
103	Melville	Shipping season	158	Churchill	Shipping season
104	Rae	Shipping season	159	York	Shipping season
105	McClintock	Shipping season	160	South-Central Hudson	Shipping season
106	Byam	Shipping season	161	South Hudson	Shipping season
107	Queens	Shipping season	162	Rankin	Shipping season
108	Maclean	Shipping season	163	Baker	Shipping season
109	(unused)	-	164	Roes Welcome	Shipping season
110	(unused)	-	170	North Tuktoyaktuk	Shipping season
111	Yukon Coast	Shipping season	171	North Mackenzie	Shipping season
112	Mackenzie	Shipping season	172	West Prince Alfred	Shipping season
113	Tuktoyaktuk	Shipping season	173	Northwest Beaufort	Shipping season
114	Baillie	Shipping season	175	Navy Board	Shipping season
115	Banks	Shipping season	176	Pond	Shipping season
116	Amundsen	Shipping season	177	Bathurst	Shipping season
117	Holman	Shipping season	310	James Bay	Shipping season
118	Dolphin	Shipping season	311	Belcher	Shipping season
119	Coronation	Shipping season	312	Puvirnituq	Shipping season
120	Dease	Shipping season	701	CT4	Shipping season
121	Maud	Shipping season	702	CU4	Shipping season
122	St-Roch	Shipping season	703	South Prince-Patrick	Shipping season
123	Larsen	Shipping season	704	Prince Patrick	Shipping season
124	Peel	Shipping season	705	North Prince Patrick	Shipping season
125	Barrow	Shipping season	706	Liddon	Shipping season
126	Jones	Shipping season	707	Fitzwilliam	Shipping season
127	Norwegian	Shipping season	708	Griper	Shipping season
128	Eureka	Shipping season	709	Ballantyne	Shipping season
129	Clarence	Shipping season	710	Brock	Shipping season
130	Kane	Shipping season	711	Wilkins	Shipping season
131	Robeson	Shipping season	712	Borden	Shipping season
132	Regent	Shipping season	713	Hazen	Shipping season

Number	Area Name	Forecast Availability Period*	Number	Area Name	Forecast Availability Period*
133	Boothia	Shipping season	714	Gustaf	Shipping season
134	Committee	Shipping season	715	Peary	Shipping season
135	Admiralty	Shipping season	716	South Ellef Ringnes	Shipping season
136	Lancaster	Shipping season	717	Ellef Ringnes	Shipping season
137	West Baffin	Shipping season	718	Hassel	Shipping season
138	East Baffin	Shipping season	719	Massey	Shipping season
139	West Clyde	Shipping season	720	South Sverdrup	Shipping season
140	East Clyde	Shipping season	721	North Sverdrup	Shipping season
141	West Davis	Shipping season	722	South Axel Heiberg	Shipping season
142	East Davis	Shipping season	723	Axel Heiberg	Shipping season
143	Cumberland	Shipping season	724	Greely	Shipping season
144	West Brevoort	Shipping season	725	Nansen	Shipping season
145	Central Brevoort	Shipping season	726	Ellesmere	Shipping season
146	East Brevoort	Shipping season	727	Ward Hunt	Shipping season
147	Frobisher Bay	Shipping season	728	Bartlett	Shipping season
148	Resolution	Shipping season	729	Alert	Shipping season
149	Ungava	Shipping season	739	CV4	Shipping season
150	Nottingham	Shipping season	740	CV5	Shipping season
151	West Foxe	Shipping season	745	CW3	Shipping season
152	East Foxe	Shipping season	746	CW4	Shipping season
153	Igloolik	Shipping season	747	CW5	Shipping season
154	Prince Charles	Shipping season	752	CX4	Shipping season

** If required, marine forecasts may also be made available outside the regular availability period upon user request.*

Table 5-27 - Inland Waters

Number	Area Name	Availability Period
180	Great Slave Lake	Open water season
181	Lake Athabasca	Open water season
182	Lake Manitoba	Open water season
183	Lake Winnipeg - south basin	Open water season
184	Lake Winnipeg - north basin	Open water season
185	Lake Winnipegosis	Open water season
190	Wrigley Harbour (mile 0) to Axe Point (mile 91)	Open water season
191	Axe Point (mile 91) to Camsell Bend (mile 290)	Open water season
192	Camsell Bend (mile 290) to Tulita (mile 512)	Open water season
193	Tulita (mile 512) to Fort Good Hope (mile 684)	Open water season

Number	Area Name	Availability Period
194	Fort Good Hope (mile 684) to Point Separation (mile 913)	Open water season
195	Point Separation (mile 913) to Kittigazuit Bay (mile 1081)	Open water season

Table 5-28 - Danish Marine Forecasts for Baffin Bay Waters Available via *Danish Meteorological Institute*, Copenhagen Telephone: (45) 39 15 7500

Number	Area Name	Period	Number	Area Name	Period
907	Nunap Isuata Kitaa	Year round	911	Attu	Year round
908	Nuuarsuit	Year round	912	Uiffaq	Year round
909	Narsalik	Year round	913	Qimusseriarsuaq	Year round
910	Meqquitsoq	Year round	914	Kiatak	Year round

Table 5-29 - Marine Weather Observations – Manned Station Reports

Area Name	Area Name	Area Name
Aklavik	Inuvik	Gjoa Haven
Fort MacPherson	Tuktoyaktuk	Coral Harbour
Fort Resolution	Yellowknife	Hall Beach
Hay River	Norman Wells	Churchill
Lake Winnipeg: Berens River	Sachs Harbour	Iqaluit
Resolute Bay	Kugluktuk	Cape Dorset

Table 5-30 - Marine Weather Observations – Automatic Reports

Area Name
Inner Whale Back Island auto-station
Egg Island auto-station (Lake Athabasca)
Regent: Fort Ross
West Baffin (northern half): Cape Liverpool
McClintock: Gateshead Island
Lake Winnipeg: Gimli
Lake Winnipeg: Grand Rapids
Lake Winnipeg: George Island
Lake Winnipeg: Norway House
Lake Winnipeg: Victoria Beach
Lake Manitoba: Oak Point

Table 5-31 - Marine Weather Observations – Buoy Reports for

Area Name
Great Slave Lake Buoy #45141
Great Slave Lake Buoy #45150
Lake Winnipeg Narrows Buoy #45145
Lake Winnipeg Buoy #45140 (South Basin)
Lake Winnipeg Buoy #45144 (North Basin)

5.9.5 *Marine Forecast Service to METAREAs XVII, XVIII and Northwestern Sections of METAREA IV (Hudson Bay and Approaches)*

Environment and Climate Change Canada's METAREAs Forecast Program provides marine forecast service to METAREAs XVII, XVIII, and northwestern sections of METAREA IV during the northern and Arctic shipping season.

The geographical boundaries of METAREA XVII are as follows: from 67°N 168° 58'W to 90°N to 67°N 120°W then back to 67°N 168° 58'W.

The geographical boundaries of METAREA XVIII are as follows: from 67°N 120°W to 90°N to 67°N 035°W then back to 67°N 120°W.

Forecast service to waters comprising northwestern sections of METAREA IV including Hudson Bay and Approaches covers all sea-areas that lay within the geographical region bounded by 67°N to the north, 071°W to the east, 51°N to the south, and 095°W to the west.

Marine Forecast service to these METAREAs is tailored to ensure compliance with the relevant standards for this type of service within the framework of the Global Maritime Distress and Safety System (GMDSS). Meteorological Maritime Safety Information (met MSI) consisting of marine weather warnings and forecasts, wave height forecasts, and sea-ice conditions for waters within these METAREAs is regularly issued twice-daily and updated as required – see maps:

Figure 5-2 - Marine Forecast Areas: METAREAs XVII and XVIII

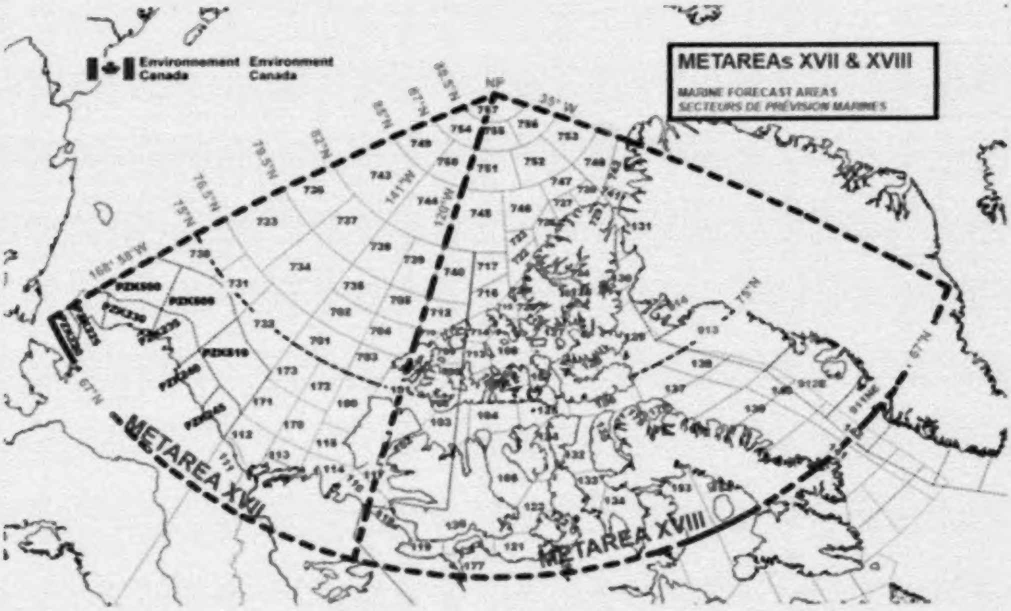
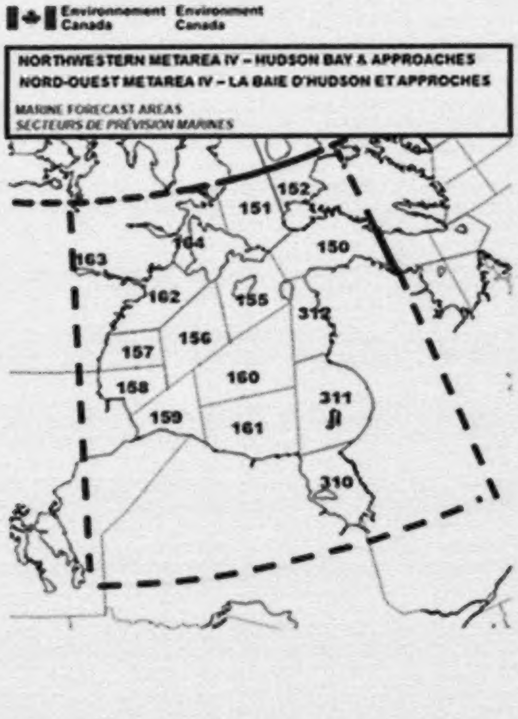

Environnement Canada
Environment Canada
METAREAs XVII & XVIII
MARINE FORECAST AREAS
SECTEURS DE PRÉVISION MARINES
NP
35° W
168° 58'W
141°W
120°W
67°N
75°N
METAREA XVII
METAREA XVIII

Figure 5-3 - Marine Forecast Areas: Northwestern METAREA IV


Environnement Canada
Environment Canada
NORTHWESTERN METAREA IV – HUDSON BAY & APPROACHES
NORD-OUEST METAREA IV – LA BAIE D'HUDSON ET APPROCHES
MARINE FORECAST AREAS
SECTEURS DE PRÉVISION MARINES
152
151
150
164
163
162
155
312
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156
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161
310

5.9.6 *Serviced Forecast Zones*

Environment and Climate Change Canada provides marine weather warnings and forecast, wave height forecasts, and sea-ice conditions, to the following marine zones within METAREAs XVII and XVIII and northwestern sections of METAREA IV:

Table 5-32 - FQCN01 CWAO - Marine Forecasts and FICN01 CWIS - Ice Bulletin for METAREA XVII North of 75°N

Number	Area Name	Number	Area Name
101	McClure	735	CU3
701	CT4	736	CV1
702	CU4	737	CV2
703	South Prince Patrick	738	CV3
704	Prince Patrick	739	CV4
705	North Prince Patrick	743	CW1
730	CT1	744	CW2
731	CT2	749	CX1
732	CT3	750	CX2
733	CU1	754	CY1
734	CU2	757	CZ1

Table 5-33 - FQCN02 CWAO - Marine Forecasts and FICN02 CWIS - Ice Bulletin for METAREA XVII South of 75°N

Number	Area Name	Number	Area Name
100	Prince Alfred	117	Holman
101	McClure	170	North Tuktoyaktuk
111	Yukon Coast	171	North MacKenzie
112	MacKenzie	172	West Prince Alfred
113	Tuktoyaktuk	173	Northwest Beaufort
114	Baillie	730	CT1
115	Banks	731	CT2
116	Amundsen	732	CT3

Table 5-34 - FQCN03 CWAO - Marine Forecasts and FICN03 CWIS - Ice Bulletin for METAREA XVIII North of 75°N

Number	Area Name	Number	Area Name
101	McClure	720	South Sverdrup
106	Byam	721	North Sverdrup
107	Queens	722	South Axel Heiberg
108	MacLean	723	Axel Heiberg
126	Jones	724	Greely

Number	Area Name	Number	Area Name
127	Norwegian	725	Nansen
128	Eureka	726	Ellesmere
129	Clarence	727	Ward Hunt
130	Kane	728	Bartlett
131	Robeson	729	Alert
707	Fitzwilliam	740	CV5
708	Griper	741	CV6
709	Ballantyne	742	CV7
710	Brock	745	CW3
711	Wilkins	746	CW4
712	Borden	747	CW5
713	Hazen	748	CW6
714	Gustaf	751	CX3
715	Peary	752	CX4
716	South Ellef Ringnes	753	CX5
717	Ellef Ringnes	755	CY2
718	Hassel	756	CY3
719	Massey	757	CZ1

Table 5-35 - FQCN04 CWAO - Marine Forecasts and FICN04 CWIS - Ice Bulletin for METAREA XVIII South of 75°N

Number	Area Name	Number	Area Name
101	McClure	133	Boothia
102	Prince of Wales	134	Committee
103	Melville	135	Admiralty
104	Rae	136	Lancaster
105	McClintock	137	West Baffin
116	Amundsen	138	East Baffin
117	Holman	139	West Clyde
118	Dolphin	140	East Clyde
119	Coronation	141	West Davis
120	Dease	142	East Davis
121	Maud	153	Igloolik
122	St. Roch	154	Prince Charles
123	Larsen	175	Navy Board
124	Peel	176	Pond
125	Barrow	177	Bathurst

Number	Area Name	Number	Area Name
132	Regent	706	Liddon

Table 5-36 - FQCN05 CWAO - Marine Forecasts and FICN05 CWIS - Ice Bulletin for Northwestern Sections of METAREA IV including Hudson Bay and Approaches

Number	Area Name	Number	Area Name
150	Nottingham	160	South-Central Hudson
151	West Foxe	161	South Hudson
152	East Foxe	162	Rankin
155	Coats	163	Baker
156	Central	164	Roes Welcome
157	Arviat	310	James Bay
158	Churchill	311	Belcher
159	York	312	Puvirnituq

Forecast service to U.S. waters within METAREA XVII is provided by the National Weather Service. Forecast service to Greenlandic waters within METAREA XVIII is provided by the *Danish Meteorological Institute*. Further information may be obtained by contacting these agencies directly.

Detailed information regarding the geographic locations and boundaries associated with the METAREAs forecast zones may be obtained by contacting the Meteorological Service of Canada at the following:

Telephone:	709-256-6612
Facsimile:	709-256-6627
Email:	ec.metareas17.18.ec@canada.ca

Additional information may be obtained by consulting the Joint Commission on Oceanography and Marine Meteorology (JCOMM) web site at http://weather.gmdss.org or by consulting the CCG notices to mariners (NOTMAR) web site at http://notmar.gc.ca.

5.9.7 *METAREAs Forecast Transmission*

During the navigation season, met MSI for sections of METAREA XVII and XVIII south of 75°N, and northwestern sections of METAREA IV, is broadcast via Inmarsat-C SafetyNET over Inmarsat's Pacific Ocean Region (POR) or Atlantic Ocean Region-West (AOR-W) satellite network. Scheduled broadcast times are:

METAREA XVII (POR) at 03:00 UTC and 15:00 UTC daily.
METAREA XVIII (AOR-W) at 03:00 UTC and 15:00 UTC daily.
Northwestern METAREA IV (AOR-W) at 03:00 UTC and 15:00 UTC daily.

Met MSI for METAREAs XVII and XVIII will be transmitted using rectangular addressed messaging that encompasses waters comprising these two METAREAs until Inmarsat-C receivers or Mini-C terminals operating in Arctic waters have been updated to recognize the SafetyNET address code C_3 = 17 and 18 for METAREAs XVII and XVIII respectively. Users should note that meteorological MSI received by their sat-C terminals may be labeled as navigational MSI.

Met MSI for the northwestern sections of METAREA IV is transmitted using rectangular addressed messaging that encompasses waters comprising Hudson Bay and Approaches. The SafetyNET address code for this rectangular area is C_3 = 50n098w18030. Thus only those Inmarsat-C receivers aboard vessels navigating within the boundaries defined by this rectangular area will print out met MSI for the northwestern sections of METAREA IV.

During the navigation season met MSI for sections of METAREA XVII and XVIII north of 70° N is broadcast via High Frequency Narrow Band Direct Printing (HF NBDP) on 8416.5 kHz from the CCG MCTS Centre in Iqaluit Nvt. Scheduled broadcast times are 03:30 UTC and 15:30 UTC daily. Mariners should note that actual HF service provision dates will be announced by CCG Notice to Shipping.

Mariners navigating northern or Arctic waters may also obtain METAREAs forecast bulletin via internet by accessing Environment and Climate Change Canada's "Datamart" web page. However, users are cautioned that the internet is not part of the GMDSS MSI dissemination system and should never be relied upon as the only means to obtain the latest marine forecast and warning information. Access to the internet may be interrupted from time to time, or updates may be delayed. Mariners are advised to refer to the appropriate GMDSS-approved marine communication systems such as Inmarsat-C SafetyNET, HF NBDP, or international NAVTEX for the latest information. When accessing Environment and Climate Change Canada's Datamart web page please ensure the page you are viewing is updated and not from your web browser's cache. If in doubt, use your web browser's Refresh or Reload button to update the web page.

Internet link to the FQCN01 CWAO forecast for METAREA XVII north of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FQ&issuer=CWAO&location=CN01

Internet link to the FICN01 CWIS ice bulletin for METAREA XVII north of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FI&issuer=CWIS&location=CN01

Internet link to the FQCN02 CWAO forecast for METAREA XVII south of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FQ&issuer=CWAO&location=CN02

Internet link to the FICN02 CWIS ice bulletin for METAREA XVII south of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FI&issuer=CWIS&location=CN02

Internet link to the FZAK61 PAFG forecast coastal Arctic Alaska:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FZ&issuer=PAFG&location=AK61

Internet link to the FZAK69 PAFG forecast offshore Arctic Alaska:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FZ&issuer=PAFG&location=AK69

Internet link to the FQCN03 CWAO forecast for METAREA XVIII north of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FQ&issuer=CWAO&location=CN03

Internet link to the FICN03 CWIS ice bulletin for METAREA XVIII north of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FI&issuer=CWIS&location=CN03

Internet link to the FQCN04 CWAO forecast for METAREA XVIII south of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FQ&issuer=CWAO&location=CN04

Internet link to the FICN04 CWIS ice bulletin for METAREA XVIII south of 75° N:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FI&issuer=CWIS&location=CN04

Internet link to the FICN07 CWIS ice bulletin for Greenlandic waters within METAREA XVIII:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FI&issuer=CWIS&location=CN07

Internet link to the FBDN61 EKMI warnings for Greenlandic waters within METAREA XVIII:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FB&issuer=EKMI&location=DN51

Internet link to the FQCN05 CWAO forecast for northwestern sections of METAREA IV:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FQ&issuer=CWAO&location=CN05

Internet link to the FICN05 CWIS ice bulletin for northwestern sections of METAREA IV:
http://dd.weather.gc.ca/cgi-bin/bulletin_search.pl?product=FI&issuer=CWIS&location=CN05

5.10 NEWFOUNDLAND AND LABRADOR

5.10.1 *Marine Weather Forecast Program*

The Newfoundland and Labrador Weather Office (NLWO) in Gander provides year-round marine weather and wave height information for the waters around Newfoundland and Labrador out to approximately 250 nm and the waters of the Gulf of St. Lawrence, as well as for other specific bodies of water.

5.10.2 *The Regular Program*

This consists of a full 24 hours, 7 days a week weather watch, warning and amendment service provided by the Newfoundland and Labrador Weather Office in Gander. The regular marine forecast covers the period out to midnight of the following day (days 1 and 2). An extended marine wind outlook covering the next 3 days (days 3, 4, and 5) is also produced.

Wave height forecasts are produced twice a day and cover the period out to midnight of the following day.

Table 5-37 - Production Schedule - Text Format

Forecast Name	Issue Time	Time Zone	Marine Region
Technical marine synopsis	03:00, 10:00, 15:30, 20:00	NDT / NST	Newfoundland
	04:00, 09:30, 16:00, 21:30	NDT / NST	Labrador
Marine forecast	03:00, 10:00, 15:30, 20:00	NDT / NST	Newfoundland
	04:00, 09:30, 16:00, 21:30	NDT / NST	Labrador
Marine weather statement	As needed	NDT / NST	Where needed
Wave height forecast	06:00, 18:00	NDT / NST	Newfoundland
	06:00, 18:00	NDT / NST	Labrador
Extended marine forecast	03:00, 15:30	NDT / NST	Newfoundland
	04:00, 16:00	NDT / NST	Labrador

Table 5-38 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule)

MCTS Centre	NAVTEX Transmitter	Header	Issue Time
Placentia / VCP	Robin Hood Bay	FQCN33 CYQX	03:00, 06:00, 10:00, 15:30, 18:00, 20:00 NDT / NST
Labrador / VOK	Cartwright	FQCN35 CYQX	04:00, 06:00, 10:00, 16:00, 18:00,21:30 NDT / NST

5.10.3 *Marine Weather Observations and Forecast Bulletins*

Observations available on the Environment and Climate Change Canada Weatheradio network are updated hourly and include a series of coastal stations extending around the coast of Newfoundland and Labrador to the Maritimes and into the Gulf of St. Lawrence, as well as offshore buoys when available. Marine forecast bulletins are updated at regular intervals or whenever necessary. These bulletins are available on MSC's Automated Telephone Answering Device (ATAD), as well as Weatheradio and CCG's Continuous Marine Broadcast (CMB).

5.10.4 *Weatheradio Canada*

Weatheradio is a public service designed to make weather information available over VHF or FM radio continuously. Weatheradio is dedicated to transmitting up to the minute weather reports and forecasts directly to all users including the marine community.

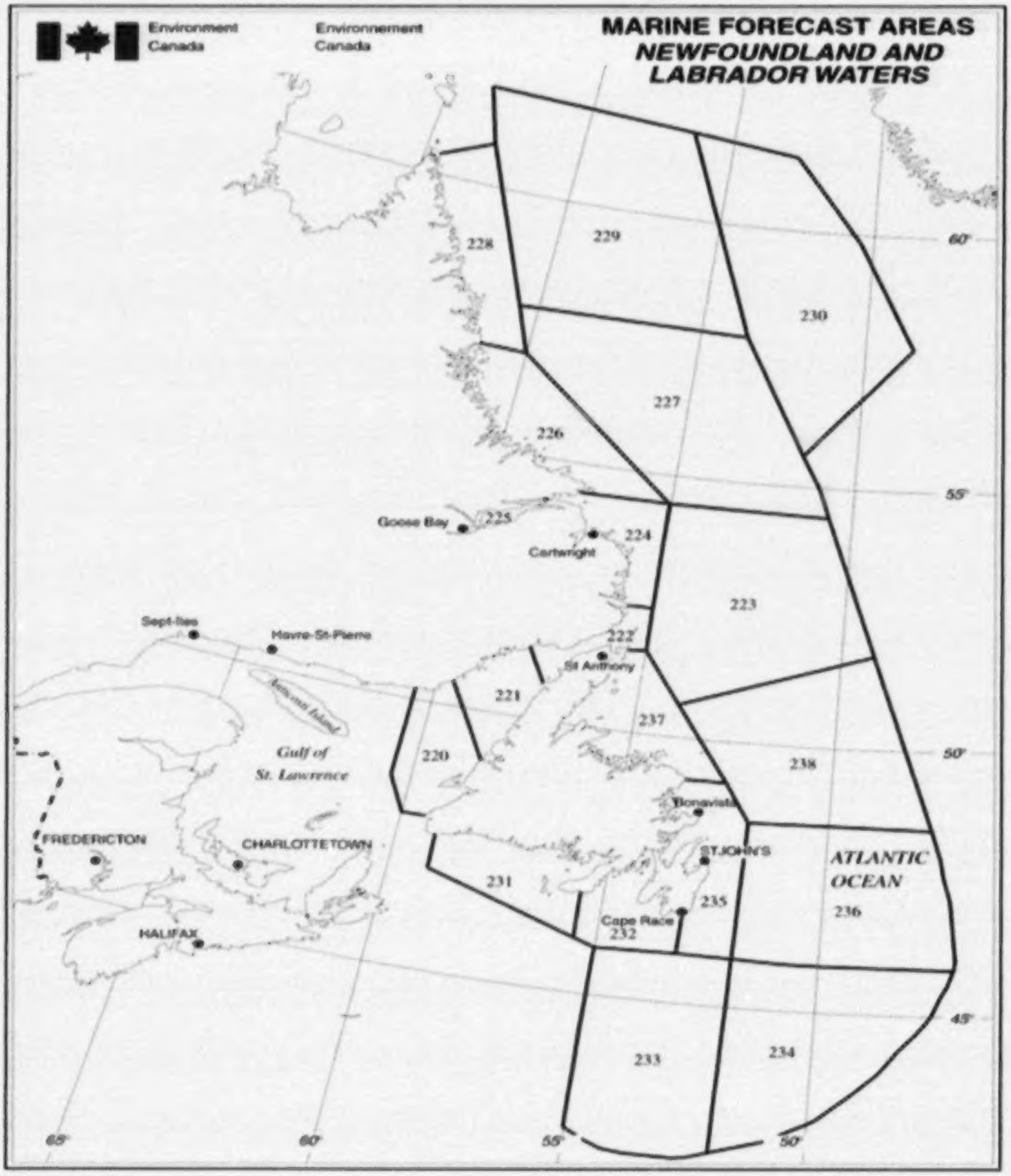
There is 1 main station in the Newfoundland and Labrador region:

Station	**Call Sign**	**Repeater**
Gander	XLM 616	15

Frequencies in use: 162.400 MHz and 162.550 MHz.

Broadcasts can be received over most coastal areas of Newfoundland and southern Labrador, and include marine weather and ice warnings, regular marine and wave height forecasts, and synopses. Hourly updated observations from coastal stations and offshore buoys are all incorporated in the broadcast. Further information regarding Weatheradio network can be obtained via the Internet at
https://www.canada.ca/en/environment-climate-change/services/weatheradio.html

Figure 5-4 - Marine Forecast Areas: Newfoundland and Labrador


Environment Canada
Environnement Canada
MARINE FORECAST AREAS
NEWFOUNDLAND AND LABRADOR WATERS
228
229
230
227
226
225
224
223
222
221
220
237
238
231
232
233
234
235
236
Goose Bay
Cartwright
Sept-Iles
Havre-St-Pierre
St Anthony
Anticosti Island
Gulf of St. Lawrence
Bonavista
FREDERICTON
CHARLOTTETOWN
ST.JOHN'S
Cape Race
HALIFAX
ATLANTIC OCEAN
60°
55°
50°
45°
65°
60°
55°
50°

5.10.5 *Marine Forecast Areas*

Table 5-39 - Newfoundland and Labrador Waters

Number	Area Name	Number	Area Name
220	Gulf - Port au Port	230	East Labrador Sea
221	Northeast Gulf	231	Southwest Coast
222	Strait of Belle Isle	232	South Coast
223	Belle Isle Bank	233	Southwestern Grand Banks
224	South Labrador Coast	234	Southeastern Grand Banks
225	Lake Melville	235	East Coast
226	Mid Labrador Coast	236	Northern Grand Banks
227	South Labrador Sea	237	Northeast Coast
228	North Labrador Coast	238	Funk Island Bank
229	Northwest Labrador Sea		

Table 5-40 - Marine Weather Observations

Area Name	Area Name	Area Name
Blanc Sablon	Ferolle Pt.	Natashquan
Bonavista	Goose Bay	Pool's Island
Burgeo	Grates Cove	Port aux Basques
Cape Whittle	Hopedale	Sagona Island
Cape Race	La Scie	St. Anthony Airport
Cartwright	Makkovik	St John's
Chevery	Marticot Island	St-Pierre
Daniel's Harbour	Mary's Harbour	Stephenville
Englee	Nain	Twillingate

Observations will be broadcast only when available.

Hourly updated observations from coastal stations and offshore buoys may also be available on Weatheradio.

5.11 MARITIMES REGION

5.11.1 *Marine Weather Forecast Program*

The Atlantic Storm Prediction Centre (ASPC) in Dartmouth N.S. provides year-round marine weather and wave height information for the waters around the Maritimes to approximately 250 nm offshore, and the waters of the Gulf of St. Lawrence, as well as for other specific bodies of water.

5.11.2 *The Regular Program*

This consists of a full 24 hours, 7 days a week weather watch, warning and amendment service, including a detailed forecast for Halifax Harbour. The regular marine forecast covers the period out to midnight of the following day (days 1 and 2). An extended marine wind outlook covering the next 3 days (days 3, 4, and 5) is also produced.

Wave height forecasts are produced twice a day and cover the period out to midnight of the following day.

5.11.3 *The Recreational Program*

The recreational program covers the waters of Bras d'Or Lake in Cape Breton during the summer season (May 1 to October 31) and is provided as a service to recreational boaters. Recreational forecasts are issued 4 times a day.

Table 5-41 - Production Schedule - Text Format

Forecast Name	Issue Time	Time Zone	Marine Region
Technical marine synopsis	03:00, 10:00, 15:30, 20:00	ADT / AST	Maritimes
Marine forecast	03:00, 10:00, 15:30, 20:00	ADT / AST	Maritimes
	03:00, 10:00, 15:30, 20:00	ADT / AST	Halifax Harbour and Approaches
Recreational boating marine forecast	03:00, 10:00, 15:30, 20:00	ADT / AST	Bras d'Or Lakes
Marine weather statement	As needed	ADT / AST	Maritimes
Wave height forecast	05:00, 17:00	ADT / AST	Maritimes
Extended marine forecast	03:00, 15:30	ADT / AST	Maritimes

Table 5-42 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule)

MCTS Centre	NAVTEX Transmitter	Header	Issue Time
Halifax / VCS	Chebogue	FQCN33 CWHX	03:00, 05:00, 10:00, 15:30, 17:00, 20:00 ADT / AST
Sydney / VCO	Port Caledonia	FQCN34 CWHX	03:00, 05:00, 10:00, 15:30, 17:00, 20:00 ADT / AST
		FQCN34 CYQX	03:00, 06:00, 10:00, 15:30, 18:00, 20:00 NDT / NST

Marine Weather Warnings (refer to Table 5-1 - Synoptic Warnings)

Note the following regional particularities:

	Warning Types	Comments
1	Strong wind warning	This warning is indicated in the forecast for coastal waters, Halifax Harbour and the Bras d'Or Lakes. Issued between April 15 and November 15.

5.11.4 *Marine Weather Observations and Forecast Bulletins*

Observations and forecast bulletins are available on MSC's Automated Telephone Answering Device (ATAD) and Weatheradio. Observations are updated hourly and include a series of coastal stations extending from the coast of Maine around the Maritimes and into the Gulf of St. Lawrence, as well as offshore buoys. Marine forecast bulletins are updated at regular intervals or whenever necessary and are available on Weatheradio and the CCG's continuous marine broadcast.

5.11.5 *Canadian Hurricane Centre*

The Canadian Hurricane Centre (CHC) is co-located with the Atlantic Storm Prediction Centre. It becomes operational when a storm system of tropical origin enters or threatens to enter the designated response zone (north of 36°N and west of 41°W) within 3 days. The CHC may begin to issue bulletins on a semi-regular basis up to 5 days prior to the expected tropical weather event so as to maintain consistent and informative messaging on the storm, and also as a tool for early contingency planning for the relevant emergency response agencies.

During the CHC's operational phase bulletins are issued at regular 6-hour intervals. These bulletins include information statements for Public and Media notification, and technical messages for use by MSC and Canadian Forces weather offices. Bulletins are issued at 3-hour intervals when the storm's impacts are occurring within MSC's forecast areas of responsibility, including offshore waters.

Table 5-43 - Moored Buoys - Positions Northwest Atlantic Ocean

WMO#	Name	LAT (deg)	LONG (deg)
44137	East Scotia Slope	42.262 N	62.998 W
44139	Banquereau	44.240 N	57.103 W
44150	La Have Bank	42.505 N	64.018 W
44258	Halifax Harbour Approaches	44.502 N	63.403 W

5.11.6 *Weatheradio Canada*

Weatheradio is a public service designed to make weather information available over VHF or FM radio continuously. Weatheradio is dedicated to transmitting up to the minute weather reports and forecasts directly to all users including the marine community.

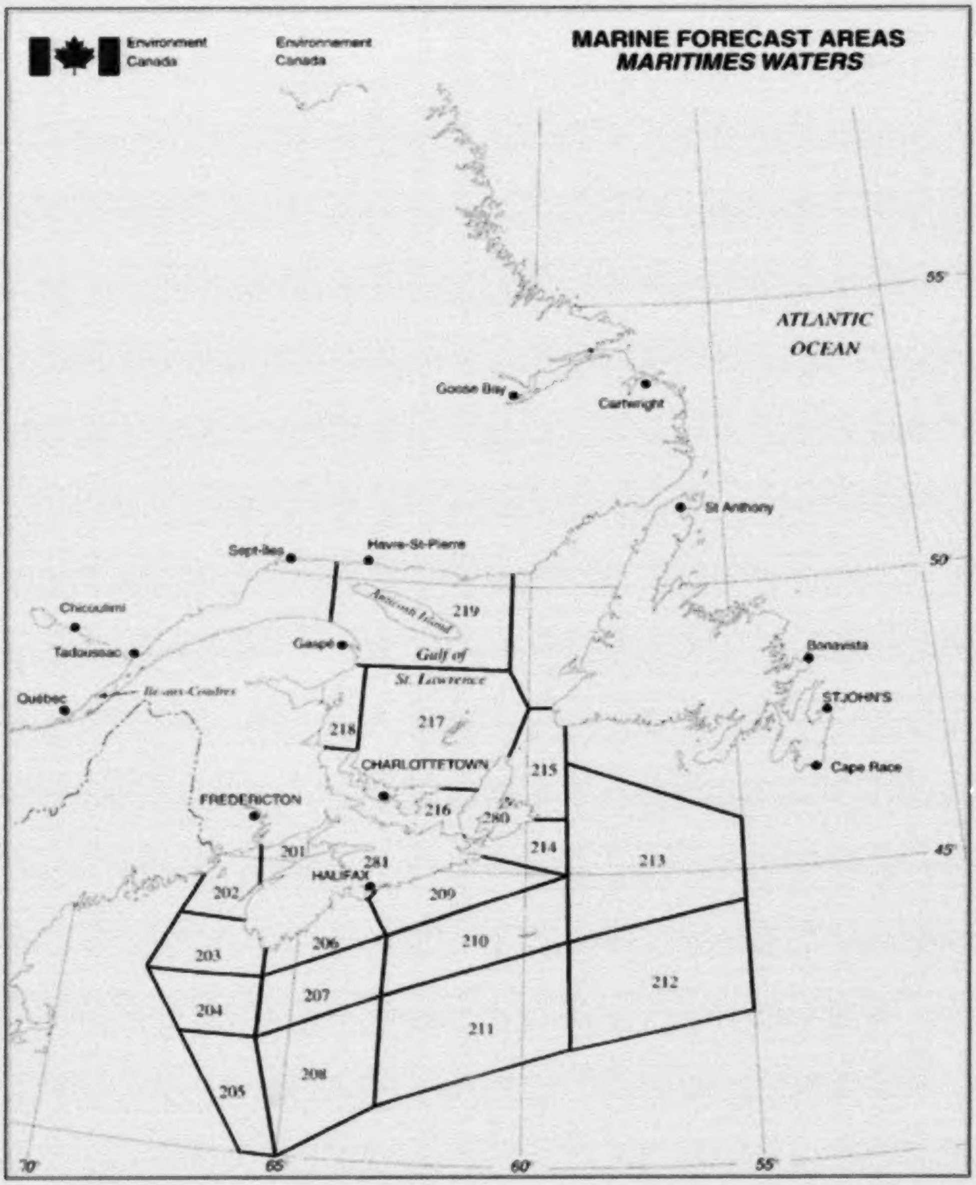
There are 2 main stations in the Maritimes region:

Stations	Call Sign	Repeaters
Moncton	XLM 466	8
Halifax	XLK 473	14

Frequencies in use: 162.400 MHz, 162.475 MHz, 162.500 MHz and 162.550 MHz.

Broadcasts can be received over most coastal areas of New Brunswick, Nova Scotia and Prince Edward Island. Broadcasts include marine weather and ice warnings, and marine forecasts including wave heights, and synopses. Hourly updated observations from coastal stations and offshore buoys are all incorporated in the broadcast.

Figure 5-5 - Marine Forecast Areas: Maritimes


Environment Canada
Environnement Canada
MARINE FORECAST AREAS
MARITIMES WATERS
ATLANTIC OCEAN
Goose Bay
Cartwright
St Anthony
Sept-Îles
Havre-St-Pierre
Chicoutimi
Tadoussac
Québec
Isle-aux-Coudres
Gaspé
Anticosti Island
Gulf of St. Lawrence
Bonavista
ST.JOHN'S
Cape Race
CHARLOTTETOWN
FREDERICTON
HALIFAX
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
280
281
55°
50°
45°
70°
65°
60°
55°

5.11.7 *Marine Forecast Areas*

Table 5-44 - Maritime Waters

Number	Area Name	Number	Area Name	Number	Area Name
201	Fundy	208	West Scotian Slope	215	Cabot Strait
202	Grand Manan	209	Eastern Shore	216	Northumberland Strait
203	Lurcher	210	Sable Island	217	Gulf – Magdalen
204	Browns Bank	211	East Scotian Slope	218	Chaleur – Miscou
205	Georges Bank	212	Laurentian Fan	219	Anticosti
206	Southwestern Shore	213	Banquereau	280	Bras d'Or Lake
207	La Have Bank	214	Fourchu	281	Halifax Harbour and Approaches

Table 5-45 - Marine Weather Observations

Area Name	Area Name	Area Name
Cap d'Espoir	Pointe-des-Monts	Iles aux Perroquets
St. Paul's Island	Pointe Heath (Anticosti)	Sept-Iles
Miscou	Port aux Basques	St. Pierre
Natashquan	Port Menier	

Observations will be broadcast only when available.
Hourly updated observations from coastal stations and offshore buoys may also be available on Weatheradio.

5.12 QUÉBEC REGION

5.12.1 *Marine Weather Forecast Program*

The program provides weather information for the St. Lawrence waterway and the Saguenay River, as well as for other specific lakes or navigable waterways.

5.12.2 *The Regular Program*

Area of coverage includes the St. Lawrence waterway between Cornwall*, Ontario, and Anticosti Island (65°W), and the navigable waterway of the Saguenay River between Saguenay and Tadoussac (see map areas 301-309). The program provides a full 24 hours, 7 days a week weather watch, warning and amendment service.

Regular forecasts are issued twice a day from the Québec Storm Prediction Centre in Montréal.

*Time coverage: Year round *St. Lawrence Seaway portion (Cornwall to Montréal) in open season only.*

Wave height forecasts are issued twice a day for marine areas 301, 302, 303 and 305.

5.12.3 *The Recreational Program*

Area of coverage is for various inland lakes and navigable waterways (See map areas 380 to 386). The recreational program is active from May to October. Also provided is a full 24 hours, 7 days a week squall warning service during the summer months (refer to Table 5-2 - Localized Warnings).

Table 5-46 - Production Schedule - Text Format

Forecast Name	Issue Time	Time Zone	Marine Region
Technical marine synopsis	03:00, 15:00	EDT / EST	St. Lawrence and Saguenay rivers
Marine forecast	03:00, 15:00	EDT / EST	St. Lawrence and Saguenay rivers
Marine weather statement	As needed		Where needed
Wave height forecast	03:00, 15:00	EDT / EST	St. Lawrence River
MAFOR	03:00, 15:00	EDT / EST	St. Lawrence and Saguenay rivers
Extended marine forecast	06:00, 18:00	EDT / EST	St. Lawrence and Saguenay rivers

Table 5-47 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule)

MCTS Centre	NAVTEX Transmitter	Header	Issue Time
Les Escoumins / VCF	Moisie	FQCN37 CWUL	03:00, 15:00 EDT / EST
		FQCN37 CWHX	03:00, 05:00, 10:00, 15:30, 17:00, 20:00 ADT / AST
		FQCN37 CYQX	03:00, 06:00, 10:00, 15:30, 18:00, 20:00 NDT / NST

Marine Weather Warnings (refer to Table 5-1).

Note the following regional particularities with respect to the regular programs:

	Warning Types	Comments
1	Strong wind warning	Issued between May 1st and October 15th only. Regular program only.

5.12.4 *Marine Weather Observations and Forecast Bulletins*

Environment and Climate Change Canada operates a network of coastal and insular weather observing stations as well as one weather buoy. Hourly weather reports from these stations are available continuously on Environment and Climate Change Canada's Weatheradio (see Weatheradio Canada below) and on request from the CCG MCTS Centres (refer to Marine Weather Observations). Marine forecasts are updated at regular intervals or whenever necessary and are available on Weatheradio and CCG's continuous marine broadcast.

5.12.5 *Buoy Position St. Lawrence River*

In order to complement its network of coastal and insular weather observing stations, Environment and Climate Change Canada operates one weather buoy on the St. Lawrence River. Mariners are requested to use caution when approaching the buoy as mooring chains are normally not detectable from a ship and can be damaged or even severed if there is contact.

WMO#	Name	LAT (deg)	LONG (deg)
45138	Mont Louis	49.543°N	065.760°W

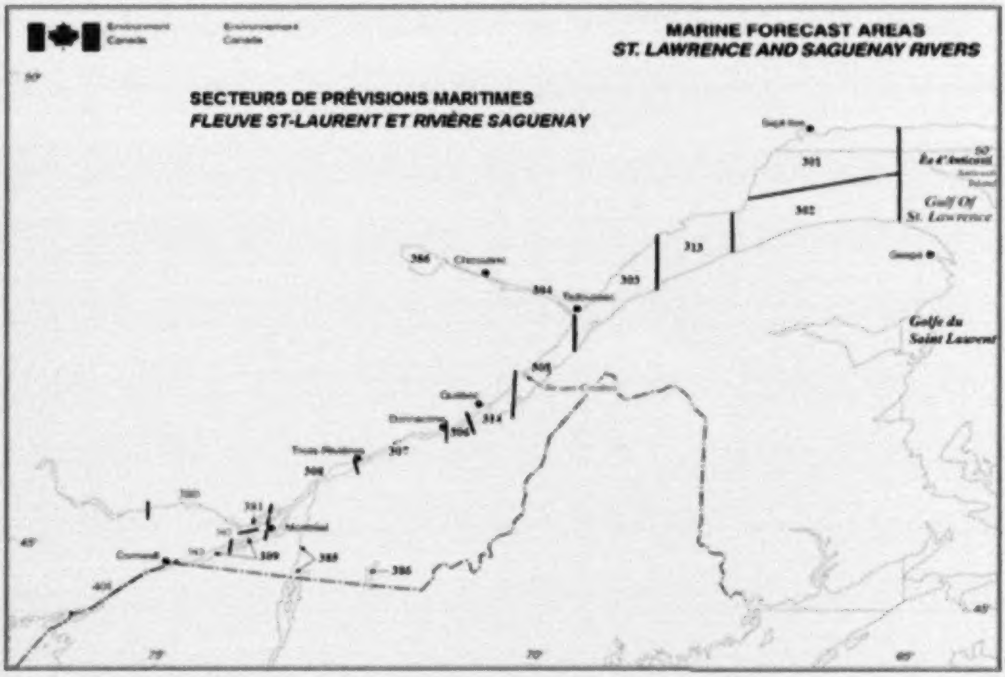
5.12.6 *Weatheradio Canada*

Weatheradio is a public service designed to make weather information available over VHF or FM radio continuously. Weatheradio is dedicated to transmitting up to the minute weather reports and forecasts directly to all users including the marine community. The table below lists all the Weatheradio stations under the responsibility of Environment and Climate Change Canada - Québec region broadcasting marine forecasts and weather reports, showing the stations and frequencies:

Stations	Frequency (MHz)	Stations	Frequency (MHz)
Montréal	162.550	Prevert	162.475
Trois-Rivières	162.400	Rivière-au-Renard	162.475
Québec	162.550	Gaspé (Pudding Stone)*	162.550
Baie St-Paul	162.400	Carleton	162.500
Grand-Fonds	162.475	Mingan*	162.400
Mont Valin	162.550	Kegaska*	162.475
Rimouski	162.550	Harrington Harbour*	162.550
St-Cléophas	162.400	Blanc-Sablon*	162.400
Sept-Îles (Pointe Noire)	162.550	Magdalen Islands*	162.550

** Also broadcast marine forecasts issued from Environment and Climate Change Canada – Atlantic Region (refer to the Maritimes Region and the Newfoundland and Labrador Region).*

Figure 5-6 - Marine Forecast Areas: St. Lawrence and Saguenay Rivers


MARINE FORECAST AREAS
ST. LAWRENCE AND SAGUENAY RIVERS
SECTEURS DE PRÉVISIONS MARITIMES
FLEUVE ST-LAURENT ET RIVIÈRE SAGUENAY
301
302
Gulf Of St. Lawrence
313
303
304
386
305
Golfe du Saint Laurent
314
306
307
308
380
381
309
385
386
70°
65°

¶

5.12.7 *Marine Forecast Areas*

Table 5-48 - Québec Waters

St Lawrence/Saguenay		Major Inland Waters	
Number	Area Name	Number	Area Name
301	Pointe-des-Monts to Anticosti - northern half	380	Ottawa River
302	Pointe-des-Monts to Anticosti - southern half	381	Lake des Deux Montagnes
313	Pointe à Michel to Pointe-des-Monts	384	Richelieu and Northern Lake Champlain
303	Tadoussac to Pointe à Michel	385	Lake Memphrémagog - northern half
304	Saguenay to Tadoussac	386	Lake Saint-Jean
305	L'Isle-aux-Coudres to Tadoussac		
306	Donnacona to Beauport		
307	Trois-Rivières to Donnacona		
308	Montréal to Trois-Rivières		
309	Cornwall to Montréal		
314	Beauport to l'Isle-aux-Coudres		

Table 5-49 - Marine Weather Observations - St. Lawrence and Saguenay Rivers

Area Name	Area Name	Area Name
Baie-Comeau	Sainte-Ann-de-Bellevue	Pointe Claveau
Cap-Chat	Île d'Orléans (St François)	Pointe-des-Monts
Cap Rouge	Île Rouge	Trois-Rivières
Dorval Airport	L'Assomption	Beauport
Île aux Grues	Lac Saint-Pierre	Sept-Îles
Île Biquette	Mont-Joli	St-Hubert Airport
La Pocatière	Pointe-de-l'Islet	Pointe-au-Père
Cap Madeleine	Pointe-Noire	

Reports are broadcast only when available.

5.13 GREAT LAKES INCLUDING ST. LAWRENCE RIVER TO CORNWALL

5.13.1 *Marine Weather Forecast Program*

The program provides marine weather information for the navigable waterway between Cornwall and Thunder Bay, and for other specific lakes or navigable waterways. Note that the program is applicable only to waters that lie on the Canadian side of the Canada-U.S. border.

5.13.2 *The Regular Program*

In addition to the Great Lakes, the area of coverage includes the waterway between Cornwall and Thunder Bay and is in effect year round except for the St. Lawrence Seaway portion where the service is only offered during the navigation season. The marine areas include: Lake Superior, Whitefish Bay, Lake Huron, Georgian Bay, Lake St. Clair, Lake Erie, Lake Ontario, and the St. Lawrence Seaway from Kingston to Cornwall. Note that the marine forecast applies to either the entire lake or the specified body of water comprising the forecast area of responsibility. The program provides a full 24 hours, 7 days a week weather watch, warning and amendment service. Synopses, regular marine and wave height forecasts are issued 3 times a day from the Ontario Storm Prediction Centre in Toronto.

5.13.3 *The Recreational Program*

Marine forecasts tailored to the needs of recreational boaters are issued during the recreational boating season 3 times a day for Lake Simcoe, Lake Nipissing, Lake of the Woods, the North Channel and Lake Nipigon. The season runs from May 1 to November 30.

Table 5-50 - Production Schedule - Text Format

Forecast Name	Issue Time	Time Zone	Marine Region
Technical marine synopsis	03:00, 10:30, 18:30	EDT / EST	Great Lakes and the Ontario portion of the St. Lawrence River
Marine forecast	03:00, 10:30, 18:30	EDT / EST	Great Lakes and the Ontario portion of the St Lawrence River
Recreational boating marine forecast	05:00, 11:30, 17:30	EDT / EST	Lake of the Woods, Lake Nipigon, North Channel, Lake Nipissing, Lake Simcoe
Marine weather statement	As needed		Where needed
Wave height forecast	03:00, 10:30, 18:30	EDT / EST	Great Lakes only
MAFOR	03:00, 10:30, 18:30	EDT / EST	Great Lakes and the Ontario portion of the St. Lawrence River
Extended marine forecast	03:00, 18:30	EDT / EST	Great Lakes and the Ontario portion of the St. Lawrence River

Table 5-51 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule)

MCTS Centre	NAVTEX Transmitter	Header	Issue Time
Prescott / VBR	Ferndale	FQCN38 CWTO	03:00, 10:30, 18:30 EDT / EST
Sarnia / VBE	Pass Lake	FQCN39 CWTO	03:00, 10:30, 18:30 EDT / EST

Marine Weather Warnings (refer to Table 5-1 - Synoptic Warnings).

Note the following regional particularities with respect to the regular program:

	Warning Types	Comments
1	Strong wind warning	Issued April-November and applies to Canadian waters only

5.13.4 *Buoys*

In order to complement the observational network, Environment and Climate Change Canada operates a network of buoys around the Great Lakes. This data becomes part of the collection of weather reports used to improve marine forecasting. Mariners are requested to use caution when approaching buoys as mooring chains are normally not detectable from a ship and can be damaged or even severed if there is contact, which could result in the buoy becoming adrift and a costly recovery of the platform. Please keep the regional Port Meteorological Officers informed of any incidents involving buoys.

Table 5-52 - Canadian Buoys

WMO#	Name	LAT (deg)	LONG (deg)
45132	Port Stanley	42.467 N	81.216 W
45135	Prince-Edward Pt	43.791 N	76.874 W
45136	Slate Island	48.535 N	86.953 W
45137	North Georgian Bay	45.544 N	81.015 W
45139	West Ontario	43.264 N	79.541 W
45142	Port Colborne	42.737 N	79.290 W
45143	South Georgian Bay	44.945 N	80.627 W
45147	Lake St. Clair	42.430 N	82.683 W
45148	Lake of the Woods	49.660 N	94.519 W
45149	Southern Lake Huron (Bayfield)	43.542 N	82.075 W
45151	Lake Simcoe	44.500 N	79.368 W
45152	Lake Nipissing	46.233 N	79.716 W
45154	North Channel East	46.051 N	82.637 W
45159	NW Lake Ontario Ajax	43.767 N	78.984 W

Table 5-53 – United States Buoys

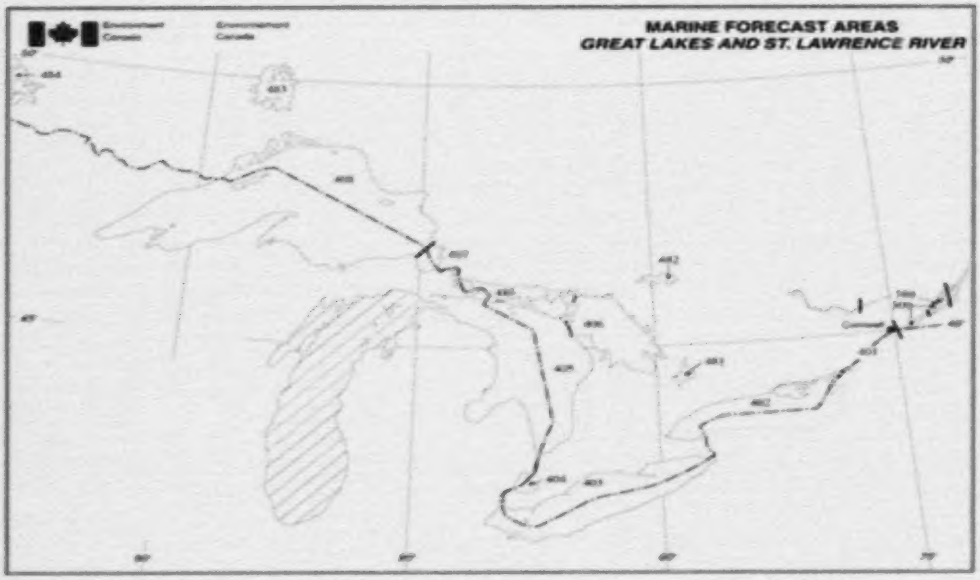
WMO#	Name	LAT (deg)	LONG (deg)
45001	Mid-Superior	48.064 N	87.777 W
45002	Michigan N.	45.344 N	86.411 W
45003	N. Huron	45.351 N	82.840 W
45004	E. Superior	47.584 N	86.587 W
45005	W. Erie	41.677 N	82.398 W
45006	W. Superior	47.335 N	89.793 W
45007	S. Michigan	42.675 N	87.025 W
45008	S. Huron	44.283 N	82.416 W
45012	Lake Ontario	43.619 N	77.405 W

5.13.5 *Weatheradio Canada*

Weatheradio in this region comprises a very comprehensive network of stations covering the Great Lakes area. Frequencies in use are: 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, and 162.550 MHz. Broadcasts include marine warnings and forecasts as well as inland warnings and forecasts. Hourly updated observations from coastal stations and buoys are also incorporated in the broadcast.

Note: Weatheradio Canada automatically alerts users to severe weather warnings. If receivers are equipped with suitable alert devices they will emit a loud continuous tone and/or flashing light when a warning is issued. Detailed information about Weatheradio may be found at https://www.canada.ca/en/environment-climate-change/services/weatheradio.html

Figure 5-7 - Marine Forecast Areas: Great Lakes and St. Lawrence River



5.13.6 *Marine Forecast Areas*

Table 5-54 - Ontario Waters

Commercial Shipping Waters		**Major Inland Waters**	
Number	**Area Name**	**Number**	**Area Name**
401	Kingston to Cornwall	481	Lake Simcoe
402	Lake Ontario	482	Lake Nipissing
403	Lake Erie	483	Lake Nipigon
404	Lake St.-Clair	484	Lake of the Woods
405	Lake Huron	485	North Channel
406	Georgian Bay		
407	Whitefish Bay		
408	Lake Superior		

Table 5-55 - Marine Weather Observations [1] - St. Lawrence River and Great Lakes

Area Name	**Reporting**
Barrie	Reports from Duluth (Lake Superior) to De Tour Reef (Lake Huron)
Lake Simcoe ODAS buoy	Reports from Great Duck Island to Windsor
Lagoon City	Reports from Long Point to Port Colborne
Kingston	Reports from Kingston to Montréal
Alexandria Bay	Reports from Port Weller to Kingston
Massena	Reports from Sarnia to Port Colborne
Superior Shoals	Reports from Sault Ste Marie to Sarnia and Georgian Bay
Grenadier Islands	
Montréal	

(1) Reports are broadcast only when available. Reports from platforms such as buoys or ships are also broadcast when available.

5.14 PACIFIC COAST

5.14.1 *Marine Weather Forecast Program*

The Pacific Storm Prediction Centre (PSPC) located in Vancouver, B.C. issues regular marine forecast and technical synopsis 4 times daily at the same time throughout the year. The forecasts are valid out to midnight of the following day. Additional products include a 3 to 5 day marine wind outlook and a wave height forecast issued twice daily.

Table 5-56 - Production Schedule – Text Format

Forecast Name	Issue Time	Time Zone	Marine Region
Technical marine synopsis	04:00, 10:30, 16:00, 21:30	PDT / PST	Pacific waters
Marine forecast	04:00, 10:30, 16:00, 21:30	PDT / PST	Pacific waters
Marine weather statement	As needed	PDT / PST	Pacific waters
Wave height forecast	04:00, 16:00	PDT / PST	Pacific waters
Extended marine forecast	04:00, 16:00	PDT / PST	Pacific waters

Table 5-57 - Production Schedule - NAVTEX format (refer to Part 2 for the MCTS broadcast schedule)

MCTS Centre	NAVTEX Transmitter	Header	Issue Time
Prince Rupert / VAJ	Amphitrite Point	FQCN33 CWVR	04:00, 10:30, 16:00, 21:30 PDT/PST
	Digby Island	FQCN35 CWVR	04:00, 10:30, 16:00, 21:30 PDT/PST

Marine Weather Warnings (refer to Table 5-1).

Note the following regional particularities:

	Warning Types	Comments
1	Strong wind warning	Issued only from March 20 to Remembrance Day. Applies to the inner waters only: Queen Charlotte Strait, Johnstone Strait, Strait of Georgia, Howe Sound, Haro Strait and Strait of Juan de Fuca.

5.14.2 *Marine Weather Observations and Forecast Bulletins*

Local weather observations are available for several stations including lighthouses, ocean buoys, automatic weather reporting stations and other stations of the regular weather network. The broadcast listing provides more information on available stations and broadcast times. Marine forecast bulletins are updated at regular intervals or whenever necessary. These bulletins are available on MSC's Automated Telephone Answering Device (ATAD), as well as Weatheradio and CCG's continuous marine broadcast.

5.14.3 *Weatheradio Canada*

Weatheradio is a public service designed to make weather information available over VHF or FM radio continuously. Weatheradio is dedicated to transmitting up to the minute weather reports and forecasts directly to all users including the marine community.

Environment and Climate Change Canada Weatheradio operates several stations serving Pacific region. These are:

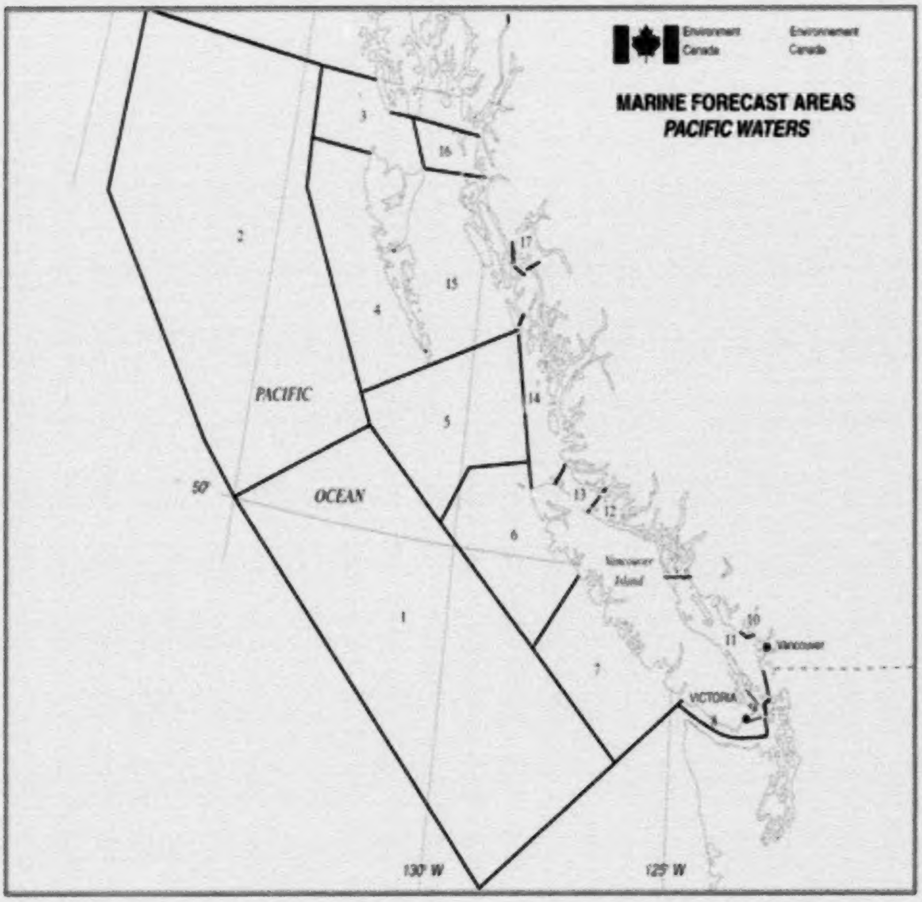
Stations	Call Sign	Frequency (MHz)	Note
Victoria (Saltspring)	XKK506	162.400	Continuous broadcast
Burnaby	CGZ555	162.550	Continuous broadcast
Texada	CGX451	162.550	Continuous broadcast
Port Hardy (FM)	CBPD-FM	103.700	Continuous broadcast
Port Hardy	VBH444	162.525	Continuous broadcast
Ucluelet	CIZ319	162.525	Continuous broadcast
Port Alberni	XLA823	162.525	Continuous broadcast
Prince Rupert	VXB571	162.525	Continuous broadcast
Masset	CKK900	162.425	Continuous broadcast
Sandspit	CYO869	162.500	Continuous broadcast

Further information regarding Environment and Climate Change Canada's Weatheradio network can be obtained via the internet at:
https://www.canada.ca/en/environment-climate-change/services/weatheradio.html

Table 5-58 - Buoy Positions – Northeast Pacific

WMO#	Name	LAT (deg)	LONG (deg)
46004	Middle Nomad	50.930 N	136.095 W
46036	South Nomad	48.355 N	133.938 W
46131	Sentry Shoal	49.906 N	124.985 W
46132	South Brooks	49.738 N	127.931 W
46145	Central Dixon Entrance	54.366 N	132.417 W
46146	Halibut Bank	49.340 N	123.727 W
46147	South Moresby	51.828 N	131.225 W
46181	Nanakwa Shoal	53.833 N	128.831 W
46183	North Hecate Strait	53.617 N	131.105 W
46184	North Nomad	53.915 N	138.851 W
46185	South Hecate Strait	52.425 N	129.792 W
46204	West Sea Otter	51.368 N	128.750 W
46205	West Dixon Entrance	54.165 N	134.283 W
46206	La Perouse Bank	48.835 N	125.998 W
46207	East Dellwood	50.874 N	129.916 W
46208	West Moresby	52.515 N	132.692 W

Figure 5-8 - Marine Forecast Areas: Pacific Waters


Environment Canada
Environnement Canada
MARINE FORECAST AREAS
PACIFIC WATERS
3
16
2
17
15
4
PACIFIC
5
14
50°
OCEAN
13
12
6
Vancouver Island
1
10
11
Vancouver
7
VICTORIA
8
9
130° W
125° W

5.14.4 *Marine Forecast Areas*

Table 5-59 - Pacific Waters

Offshore		North Coast		South Coast	
Area	**Area Name**	**Area**	**Area Name**	**Area**	**Area Name**
001	Explorer	003	Dixon Entrance West	006	West Coast Vancouver Island North
002	Bowie	004	West Coast Haida Gwaii	007	West Coast Vancouver Island South
		005	Queen Charlotte Sound	008	Juan de Fuca Strait
		014	Central Coast from McInnes Island to Pine Island	009	Haro Strait
		015	Hecate Strait	010	Howe Sound
		016	Dixon Entrance East	011	Strait of Georgia
		017	Douglas Channel	012	Johnstone Strait
				013	Queen Charlotte Strait

5.14.5 *Marine Weather Observations*

Table 5-60 - Lighthouse Reports, (Type L), Automatic Reporting Stations (Type A), Ocean Buoys reports (Type B)

Area Name	Area Name	Area Name	Area Name
Addenbroke Island - L	Entrance Island – A, L	Nootka - L	Smith Island (USA)* - B
Ballenas Island – A	Esquimalt Harbour - A	North Hecate Strait - B	Solander Island - A
Bella Bella - A	Estevan Point – A, L	North Nomad - B	South Brooks - B
Boat Bluff - L	Fanny Island - A	Pachena Point - L	South Hecate Strait - B
Bonilla Island – A, L	Green Island - L	Pam Rocks - A	South Moresby - B
Cape Beale - L	Grey Islet - A	Pine Island - L	South Nomad - B
Cape Flattery (USA)* - B	Grief Point - A	Point Atkinson - A	Tatoosh Island (USA)* - A
Cape Mudge - L	Halibut Bank - B	Point Wilson (USA)* - L	Trial Island - L
Cape Scott - L	Herbert Island - A	Port Angeles (USA)* - L	Triple Island - L
Cape St James - A	Holland Rock - A	Prince Rupert - A	Tsawwassen - L
Carmanah Point - L	Ivory Island - L	Pulteney Point - L	Tsawwassen Ferry- A
Cathedral Point - A	Kelp Reef - A	Quatsino - L	Victoria Harbour – A
Central Dixon Entrance - B	Kindakun Rocks - A	Race Rocks - A	Victoria/Gonzales Pt - A
Chatham Point - L	La Perouse - B	Rose Spit - A	West Dixon Entrance - B
Chrome Island - L	Langara Island - A, L	Sandheads - A	West Moresby – B
Cumshewa Island - A	Lennard Island - L	Sartine Island - A	West Sea Otter – B
Discovery Island - A	Lucy Island - A	Saturna Island - A	
Dryad Point - L	Middle Nomad - B	Sheringham Point - A	
Egg Island - L	Nanakwa Shoal - B	Sisters Island - A	

Area Name	**Area Name**	**Area Name**	**Area Name**
East Point - A	McInnes Island - L	Scarlett Point - L	
East Dellwood - B	Merry Island - L	Sentry Shoal – B	

**** Note that the following stations are located in Washington USA: Cape Flattery, Friday Harbour, Point Wilson, Port Angeles, Smith Island, Tatoosh Island.***

5.15 CANADIAN ICE SERVICE (CIS)

5.15.1 *Ice Forecasts*

Daily sea ice and lake ice forecasts are produced where there is marine activity. These bulletins describe the average ice concentration by marine area as well as the concentration of the thickest type of ice. If conditions are expected to be severe there will be an ice warning. The furthest extent of the edge of the ice for that region is provided using latitude and longitude coordinates.

The daily iceberg bulletin provides the estimated limit of all known icebergs using latitude and longitude coordinates and a general description of the number of icebergs for each marine area.

Table 5-61 - Production Schedule - Ice Bulletins Text Format

Forecast Name	Issue Time	Time Zone	Marine Region
Iceberg bulletin	11:00	EDT / EST	East Coast waters
Ice forecasts	10:00	EDT / EST	Western and Central Arctic
	11:00	EDT / EST	Hudson and Foxe
	11:00	EDT / EST	Eastern and Northern Arctic
	10:00	EDT / EST	Gulf of St. Lawrence
	10:00	EDT / EST	East Newfoundland and Labrador waters
	12:00	EDT / EST	Great Lakes

Table 5-62 - Production Schedule - NAVTEX Format (refer to Part 2 for the MCTS broadcast schedule)

MCTS Centre	NAVTEX Transmitter	Header	Issue Time
Placentia / VCP	Robin Hood Bay	FICN33 CWIS	17:50 (W), 21:50 (S) UTC
Sydney / VCO	Chebogue	FICN34 CWIS	22:10 UTC
Labrador / VOK	Cartwright	FICN35 CWIS	23:20 UTC
Iqaluit / VFF	Iqaluit	*FICN36 CWIS	07:00, 19:00 UTC
Prescott / VBR	Ferndale	FICN38 CWIS	00:40, 12:40 UTC
Sarnia / VBE	Pass Lake	FICN39 CWIS	06:00, 18:00 UTC

Ice NAVTEX FICN36 is being broadcast from Iqaluit MCTS since November 20, 2013.

Table 5-63 - Ice Warning Criteria

	Warning Name	Warning Criteria
1	Ice Pressure Warning	Reported or forecast strong ice pressure.
2	Rapid Closing of Coastal Leads Warning	Rapid closing of coastal leads is expected to occur. Leads are corridors of mainly ice-free water surrounded by pack ice.
3	Special Ice Warning	When one tenth or more of grey-white ice or older is expected to move into areas when that ice is not normally present, or for any unusual or significant ice event that may present a hazard to navigation.

5.15.2 *Ice Program*

Ice forecasts are issued for daily, monthly and seasonal time scales.

5.15.3 *Ice Reports or Observations*

Ice reports from ships or aircraft are normally relayed through MCTS Centres for broadcast. These reports are all assimilated in the daily ice charts produced by CIS.

5.15.4 *Ice Charts*

Daily ice charts are produced in areas of active marine activity. Recent satellite imagery as well as computer model output are used as guidance to create the charts. The charts depict the forecast of the ice conditions at the valid time. The area covered by the chart depends on the time of the season and these charts are normally broadcast at times specified in tables below.

Satellite image analysis charts are produced for active marine areas when satellite is available. These represent the actual conditions at the time of the satellite image.

Once a week, the CIS produces Regional ice charts. These charts are intended to be used as a planning tool and are available on the CIS Website at http://www.ice-glaces.ec.gc.ca/. They are not broadcast through MCTS Centres.

5.15.5 *Weatheradio Canada*

Ice forecasts and warnings are not broadcast via Weatheradio, however, mariners planning operations in waters impacted by hazardous ice conditions may obtain details regarding ice conditions by consulting the CIS Website at http://www.ice-glaces.ec.gc.ca or by contacting their regional MCTS Centre. Detailed ice information may also be obtained through consultation with an Environment and Climate Change Canada meteorologist using the "Weather One-on-One" 1-900 service at 1-900-565-5555. For cell phone users and credit card billing call 1-888-292-2222. User fees apply.

5.15.6 *CIS Service to Marine Forecast Areas*

The CIS issues ice bulletins and forecasts for most marine forecast areas with navigable waters, including Lake Michigan and the U.S. portion of the Great Lakes, whenever the presence of ice may hinder or otherwise pose a hazard to navigation. The areas for which ice bulletins and forecasts are issued correspond to the marine forecast areas as depicted in the Chapter 5 regional maps; refer to your region of interest for further information.

5.15.7 *Daily Ice ChartsBroadcast*

http://www.ice-glaces.ec.gc.ca/

The following list describes daily ice charts produced to support marine activities which are available for broadcast. All available charts can be transmitted or re-transmitted on request. MCTS broadcast times are found in Part 2. The specific daily chart used to depict the ice conditions may vary depending on the location of the ice. For example, either Northeast or East Newfoundland charts may be provided, but not both at the same time.

Table 5-64 - Ice Charts Listing

Ice Charts	Broadcast Site	Season
Iceberg limit	Sydney MCTS	Year round
Gulf of St. Lawrence	Sydney MCTS	Winter
Cabot Strait	Sydney MCTS	Winter
Northeast or East Newfoundland Waters	Sydney MCTS	Winter
Southeast Newfoundland Waters	Sydney MCTS	Winter
Newfoundland Coast	Sydney MCTS	Winter
Labrador Coast	Iqaluit MCTS	Summer
Hudson Strait	Iqaluit MCTS	Summer
Northern Hudson Bay	Iqaluit MCTS	Summer
Southern Hudson Bay	Iqaluit MCTS	Summer
Foxe Basin	Iqaluit MCTS	Summer
Davis Strait	Iqaluit MCTS	Summer
Baffin Bay	Iqaluit (Resolute) MCTS	Summer
Approaches to Resolute	Iqaluit (Resolute) MCTS	Summer
Queen Maud	Iqaluit (Resolute) MCTS	Summer
Amundsen Gulf	Iqaluit MCTS	Summer
Alaskan Coast	Iqaluit MCTS	Summer
Eureka	Iqaluit (Resolute) MCTS	*On request
Parry Channel	Iqaluit (Resolute) MCTS	*On request
M'Clure Strait	Iqaluit (Resolute) MCTS	*On request
Byam - Resolute	Iqaluit (Resolute) MCTS	*On request
Bering Strait	Iqaluit MCTS	*On request
Chukchi	Iqaluit MCTS	*On request
Nunivak	Iqaluit MCTS	*On request
Canada Basin	Iqaluit MCTS	*On request
Alert	Iqaluit MCTS	*On request

Ice Charts	**Broadcast Site**	**Season**
Nome	Iqaluit MCTS	*On request
Arctic Ocean	Iqaluit MCTS	*On request
North Pole	Iqaluit MCTS	*On request

** On request: Ice charts for Canadian Waters are available upon request to MCTS with at least 5-day prior notice. These charts may end with little or no notice if no shipping activity is expected or identified.*

METOC Halifax (CFH): The Canadian Forces Fleet MetOc Broadcast service (radioteletype and radiofacsimile) was placed in abeyance effective September 2, 2010. The Canadian Forces Fleet MetOc Broadcast may be reinstated and ceased without warning as necessitated by military operational requirements. When notified, MCTS will issue a Notice to Shipping concerning reinstatement or cessation of this service. Broadcasts intended for North Atlantic waters North of 35N and West of 35W. Radiofacsimile transmission commences with a 30 second break followed by a 30 second signal.

Table 5-65 - Canadian Coast Guard and Canadian Forces Fleet MetOc Radio Facsimile Stations

Name	**Call Sign**	**Modulation**	**Index of Cooperation**	**Power**	**Frequencies (kHz)**	**Drum Speed**
Iqaluit MCTS	VFF	J3C (FM)	576	1 KW	3251.1, 7708.1 (USB)	120 RPM
METOC Halifax	CFH	J3C (FM)	576	6 KW	4271, 6496.4, 10536, 13510	120 RPM
METOC Halifax	CFH	J3C (FM)	576	10 KW	122.5	
Sydney MCTS	VCO	J3C (FM)	576	5 KW	4416, 6915.1	120 RPM

For correct reception of this broadcast on WMO standard facsimile recorders requiring 2300 Hz for White and 1500 Hz for Black, 1900 Hz centre frequency, radio receivers should be tuned in the UPPER SIDEBAND MODE or USB: add 1.9 to the indicated USB frequencies for FSK frequencies.

5.15.8 *Facsimile Broadcast*

Upon authorized request from CCG, C-GCFR can transmit observed conditions via satellite fax. Vessels must make a request through the CCG to receive it.